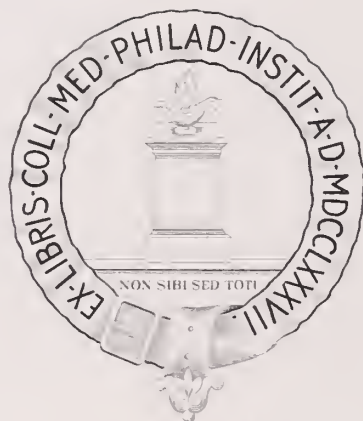


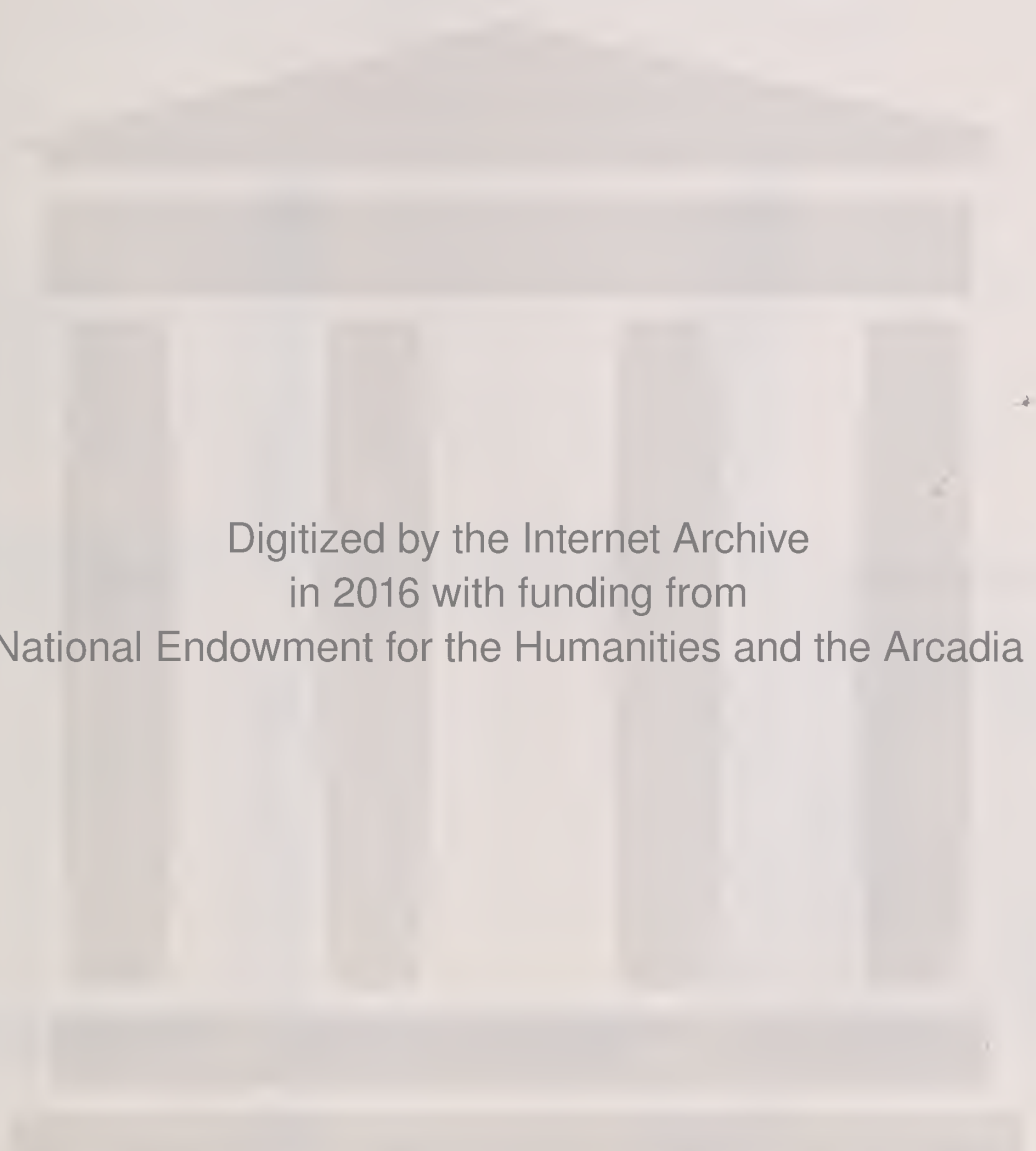
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Missouri Medicine

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January, 1980

122nd ANNUAL SESSION

Preliminary Program

New!
Bone Case of the Month

The
Fractured
Scapula

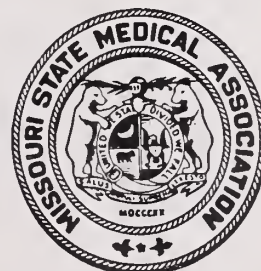
Special Review Article

Current Concepts
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Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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References should be arranged at the end of the article in the order in which the references are cited in the text. The reference should give name of author, title of article, name of periodical, volume number, initial page number and year. Authors are responsible for reference accuracy.

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NEWS ROUND - UP

January, 1980

Council approves plan for MOMEDICO stock

A proposed plan concerning the redemption and exchange of MSMA Subordinated Notes for common stock of Missouri Medical Insurance Company (MOMEDICO) was approved by the MSMA Council at its December 15, 1979 meeting in Columbia. This plan is an agreement among the MSMA, MOMEDICO and Boatmen's National Bank of St. Louis which implements a resolution passed by the House of Delegates in November.

At the December meeting, the Council also approved nominations to the MOMEDICO Board of Directors: one year terms — Andrew McCanse, M.D., Howard Linville, M.D., Royal O. Cooper, James Hamilton and Roger Detrich; two year terms — Garth Russell, M.D., Richard Bradley, M.D., Eugene Hansbrough, M.D. and John N. Martin, M.D.; three year terms — H. Peter Ekern, M.D., Howard J. McAlhany, M.D., James Stokes, M.D. and Irving H. Clark, M.D.

The report of the MSMA Budget and Finance Committee was approved by the Council, with portions to be studied further at the February meeting.

Because the Association currently has a surplus of funds due to extra interest income from the operating fund and the reserve fund, the Council authorized the surplus to be invested in bonds or certificates of up to 12 months. The Council also authorized the transfer of excess funds to the reserve fund until it is up to the level of one-half of a year's budget.

The Council approved the accreditation of the following hospitals to sponsor Continuing Medical Education

programs: St. Anthony's, St. Louis (one year provisional); Fairfax Hospital (two years); Methodist Medical Center, St. Joseph (three years); St. Francis Hospital (three years); and Kansas City Memorial (three years).

In other actions, the Council:

- Authorized the Executive Committee to temporarily approve charters of the four medical student component societies until the next meeting of the Council in February.

- Approved of the concept of requiring restraints for children under four years of age when riding in a motor vehicle.

- Referred to the Commission on Medical Economics a proposal from General American Life, the Medicare Part B fiscal agent for most of Missouri, requesting a closer working relationship with the MSMA.

- Approved the report of the Committee on Legislative Affairs on the bills which have been pre-filed for the 1980 Missouri General Assembly.

- Authorized the Ad Hoc Continuing Medical Education Committee to work on the possibility of dual accreditation by the AMA CME Committee and the LC-CME, but with primary accreditation by the AMA.

- Referred to the Commission on Medical Economics for study the subject of physician-sponsored IPAs vs. government-sponsored HMOs.

- Selected the dates of November 1 and 2 for the 1980 Interim Session at the Holiday Inn in Joplin.

Physicians in Missouri . . . by the number

The records of the Missouri State Board of Registration for the Healing Arts currently indicate that there are 7,334 M.D.s and 1,135 D.O.s registered as practicing in the state.

This number reflects substantial growth in Missouri's physician population during the past 18 months. During this period, 1,955 physicians were licensed while approximately 450 physicians failed to register, resulting in an increase of 17.7 percent.

MSMA committee appointed to increase nominations for AMA positions

The MSMA Council recently appointed a committee to try to increase the number of nominations from the MSMA for positions on AMA Councils and Committees. This committee consists of Drs. T.J. Cooper, St. Louis; Donald McIntosh, Kansas City; and Marvin A. Singleton, Joplin.

At this time, few physicians from Missouri serve on AMA Councils and Committees. There are vacancies on these Councils and Committees every year, and positions are filled by both appointment and election.

Any MSMA member who is interested in serving on an AMA Council or Committee is urged to contact one of the members of the MSMA committee or the MSMA headquarters. Nominations must be submitted to the AMA Board of Trustees by March 1.

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Missouri Medicaid begins 'single fee' payment schedule

Missouri Medicaid officials recently agreed to establish a "single fee for single service" payment schedule, which was requested in a resolution adopted by the MSMA House of Delegates in November. According to a spokesman for the Missouri Division of Family Services, participating physicians can expect the new fee schedule to take effect on January 28.

In line with other aspects of the MSMA resolution, the new Medicaid policy assures that no physician will receive a lower amount of reimbursement than that physician is currently receiving.

Physicians were faced with the prospect of only Board Certified (not Board Eligible) receiving the higher fee. Instead, when the change becomes effective, all

participating physicians will be paid the maximum available under Schedule III — the level authorized under Medicaid.

The MSMA House adopted the "single fee" resolution at the urging of many delegates who said that the new payment system would hopefully lead to broader physician participation in the Medicaid program.

Along with the new payment policy, state Medicaid officials have stated that they are submitting a proposed budget to the Governor which calls for an increase in the amount of fees paid to participating physicians. Both the Governor and General Assembly will make the final decision on the budget request.

May workshop scheduled for resident physicians

Again this spring, the MSMA is sponsoring a two-day "Establishing Yourself in Medical Practice" workshop for physicians planning to go into private practice: residents and physicians leaving the military or prepaid groups. Most attendees in past workshops have been in their last two years of residency programs.

The program will be held May 15 and 16, 1980, at the Airport Marriott in St. Louis. It will be presented by Conomikes Associates, a group of nationally recognized medical practice management consultants who work with all specialties in all types of practice settings throughout the United States.

Limited to 30 enrollees to ensure maximum participation, the workshop provides practical information about the business side of the medical practice. Participants receive a comprehensive workbook which will serve later as a permanent practice management reference work.

The registration fee for the two-day program is \$70 for members of the MSMA and \$80 for nonmembers. Physicians who have attended the workshop in the past years have commented that "the program is well worth the money" and "a mistake for anyone to miss."

The program content for the workshop is as follows:

1. Personnel

- How to recruit & select the best personnel.
- Training tips that improve performance.
- Reviewing personnel performance & salaries.
- Policies and rules.
- Improved communications: Doctor/Staff/Patient

2. Patient flow

- Telephone techniques for better patient service.
- Effective appointment scheduling systems.
- Office design and layout; equipment.

3. Financing your practice — Leasing

- Dealing with banks and bankers.
- Financing your equipment and improvements.
- Rent, buy or lease?
- How to evaluate your future office location.

4. Medical records

- What do you need?
- Alphabetical vs numeric filing.
- Where and what type of file cabinets.

5. Financial management techniques

- Basic bookkeeping requirements.
- How to keep track of patient charges.
- Billing your patients — collection techniques that work and improve patient communications.
- Insurance processing.
- Periodic financial review by the physician.

6. Economic and legal aspects of practice

- Solo practice; partnerships and groups.
- What to negotiate for in a partnership or groups.
- Professional corporations?

7. Practice setting and practice-building techniques

- Choosing a lawyer and accountant.
- Professional and economic prospects of your community.
- Should your spouse or relative be involved in your practice?
- Effective methods to build your practice.

For additional information, please clip the accompanying box and mail it to the MSMA, Box 1028, Jefferson City, MO 65102.

Establishing Yourself in Medical Practice Workshop

Please send additional information on the "Establishing Yourself in Medical Practice" workshop, May 15 and 16, 1980 at the Airport Marriott, St. Louis.

Name _____

Address _____

AMA House votes on three Missouri resolutions

During the December AMA Interim Session in Hawaii, the House of Delegates acted upon three resolutions submitted by the MSMA.

The first resolution called for an assessment to be levied on all AMA members enabling the AMA to continue to oppose the chiropractic intrusion in the practice of medicine. This resolution was not adopted, because the AMA House felt the assessment is not needed at this time.

The second resolution, submitted by the MSMA Council, called for an AMA WATS Line. The AMA House recognized the possible membership benefits in this proposal and referred it to the Board of Trustees for a comprehensive study of the costs involved.

The MSMA also proposed a third resolution regarding the application of podiatrists for hospital privileges. The AMA House agreed that the Board should investigate the issue and report back at the 1980 AMA Annual Session.

Resolution deadline for Annual Session is March 3

MSMA members and component medical societies wishing to introduce resolutions at the 1980 Annual Session of the Missouri State Medical Association must submit these resolutions by March 3 for insertion in the Delegates' Handbook.

Any resolution introduced after March 3 must be made available to the House of Delegates 24 hours before the session in which it is to be introduced. Sufficient copies of the resolution or funding for the same must be supplied by the individual or society sponsoring the resolution.

At the second session of the House, the same procedure must be followed, but such introduction requires two-thirds approval. Unanimous approval is needed for introduction at the final session.

Impaired Physician program planned for April

The Missouri State Medical Association Committee on the Impaired Physician will hold its first annual Impaired Physician Program on April 19, 1980, in conjunction with the MSMA Annual Session at the Crown Center Hotel in Kansas City.

The program, open to all interested MSMA members, auxiliary members and guests, will explore the areas of alcoholism, drug abuse, mental and emotional illness, effects upon the family and possible disciplinary measures for the impaired physician. Discussions about causes, treatment, recovery and problems of confrontation will also be held.

The featured speakers will include G. Douglas Talbott, M.D., founder of the Medical Association of Georgia Disabled Doctor's Program and, presently, medical director of Ridgeview Institute.

George Penn, M.D. from the Menninger Foundation in Topeka, Kansas, will discuss the mentally and emotionally impaired physician.

Mrs. Jackie Harrison, Daytona Beach, Florida, will speak on the impaired physician and his/her effects on the family.

David L. Ohlms, M.D., St. Louis, will discuss alcohol and drug abuse treatment programs.

Mr. Gary Clark, executive secretary of the Missouri State Board of Registration for the Healing Arts, will explain the role of the State Board and the disciplinary functions of the Board concerning impaired physicians.

**MSMA Committee on the Impaired Physician
Confidential 24-hour Recorded Message Telephone Number
314-636-5744**

'Voluntary Effort' slides available for MSMA members

The "Voluntary Effort" National Steering Committee has prepared two sets of slides concerning their cost containment program.

These slides are available from the MSMA headquarters for any member who might be interested in using them in a presentation to a medical audience or any public group.

The slides describe the goals and objectives of the Voluntary Effort program for 1980. They also show, in graph form, rates and causes of hospital expenditure increases and comparisons with increases in the rest of the economy.

Donations needed to send medical students to Annual Session

The future of the medical profession lies in the medical students of today.

At the 1979 Interim Session, medical students who join the MSMA were given all of the rights and privileges of active membership and a position on the MSMA Council.

However, more is needed to encourage student interest in organized medicine. The MSMA Student Fund, which was set up in 1978, sponsors the attendance of students to Association meetings so they can gain first-hand knowledge of what the MSMA really does.

There are more than 2,000 students in Missouri's medical schools. At the 1979 MSMA Annual Session, money was available to sponsor only nine of these students.

All donations are welcome. If every member of the MSMA would contribute just a few dollars to the fund, any medical student who wants to find out what organized medicine is all about can attend MSMA House of Delegates meetings, scientific sessions and the Annual Banquet.

If you wish to make a contribution to the MSMA Student Fund, please send it to: MSMA, P.O. Box 1028, Jefferson City, MO 65102.

MSMA Student Fund

I would like to contribute to the MSMA Student Fund.

Name _____

Address _____

Enclosed is my check for \$ _____

Make checks payable to: *Missouri State Medical Association Student Fund.*

Information for physicians on Medicaid claims from E.D.S. Federal

Several important steps must be followed to ensure payment on Medicare crossover claims. To begin with, a physician must accept assignment on a Medicare claim before payment can be made by Medicaid for co-insurance and deductible. When the physician accepts assignment and the patient is eligible for Medicare payments, submit all covered services to Medicare first. In most cases the Medicare carrier will submit all Medicare crossover claims directly to E.D.S. Federal. You do NOT need to file a claim with E.D.S. Federal in this instance.

If the Medicare carrier returns the Medicare claim to the physician, it is the physician's responsibility to submit the Medicare crossover claim to E.D.S. Federal for Medicaid payment. There are different procedures to follow depending upon payment or denial from Medicare. Please find the applicable situation below and follow the steps as shown:

- A. If Medicare pays for all services on a claim:
 1. Submit a copy of the Medicare form to E.D.S. Federal along with a copy of the EOMB. Do NOT fill out a Medicaid claim form.
- B. If Medicare denies all services on a claim:
 1. Fill out the Medicaid claim form for all Medicare denied services.
 2. In Field 2, mark "Yes, not applicable."
 3. Attach a copy of the EOMB showing the denials to the claim.
 4. Do NOT attach a copy of the Medicare form to your Medicaid claim. These claims will be processed as "Medicaid Only" claims.
- C. If Medicare pays for part of the services and denies part of the services:
 1. Fill out a Medicaid claim for those services denied by Medicare. Check Field 2 of the claim showing "Yes, not applicable." Attach a copy of the EOMB showing the denial to the claim. Do NOT attach a copy of the Medicare form to the Medicaid claim. These claims will be processed as "Medicaid Only" claims.
 2. In order to receive co-insurance and deductible for services which were paid by Medicare, send a copy of the Medicare claim and a copy of the EOMB to E.D.S. Federal. Do NOT fill out a Medicaid claim for these services.

For further assistance in submitting Medicare crossover claims, please contact the E.D.S. Federal Communications Unit.

Medical school enrollment reaches record high

Medical school enrollment reached a record high of 63,000 during the 1979 academic year. This represents a 2.5 percent growth rate over the previous year.

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\$250,000 MAJOR MEDICAL PLAN

Especially designed to fill the needs of physicians...to help meet today's rising medical costs. After a sensible deductible, the plan pays 80% of eligible expenses to \$5,000...then 100% thereafter to \$250,000...a lifetime benefit for each and every covered person.

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Inflation continues to rob life insurance estates of their purchasing power. The MSMA Group Term Life Insurance Plan is the inexpensive way to restore that lost buying power. Members and eligible employees may apply for coverage up to \$250,000. And the Accidental Death Benefit you choose can be as much as \$100,000 but no more than the life insurance amount you have chosen. Coverage for eligible dependents is also available.

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Kansas City, Missouri 64141

Please send me complete details on the plans I've checked below:

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☐ Term Life Insurance plus Accidental Death Benefit

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**The Senator will now
show us that
surgery isn't all that difficult.**

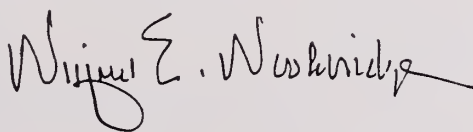
Editor's Corner

FROM LONG EXPERIENCE

- (1) *Comment:* Doc, I don't care about the expense. We want the best. Don't spare a thing.
Answer: Don't bother to send a bill. At least, you save the postage.
- (2) *Comment:* I know what my problem is and I have written down some things, Doctor. I just can't find anyone who understands.
Answer: Forget the rest of the afternoon.
- (3) *Comment:* We have the very best insurance from a new company. It covers everything.
Answer: Very likely a \$500 deductible, payable only when falling from a bicycle or being gored by a bull after 5 PM on a Tuesday.
- (4) *Comment:* Doctor, we have every faith in your judgement. Simply do as you think best and don't worry. We are in your hands.
Answer: Where did I put that malpractice policy?
- (5) *Comment:* But I can only make an appointment on Wednesday next week, and it must be between one and two in the afternoon.
Answer: A retired person with nothing left to do the rest of the day when he brushes his teeth after breakfast.
- (6) *Comment:* I can come any day, any time. You name it.
Answer: A farmer who lives a hundred miles away, with hay down, cows to milk and 300 acres to care for with no help.

* * *

'Twas ever thus — and thus 'twill ever be.



Wilfred E. Wooldridge, M.D.

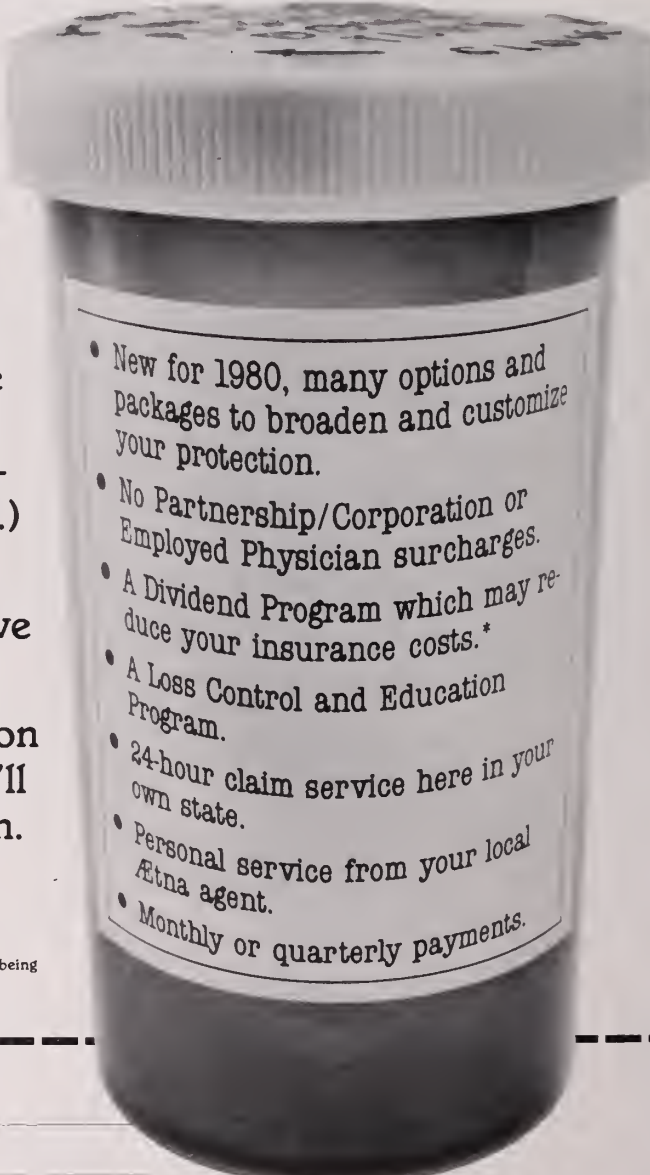
Aetna prescribes 11.3% off 1980 professional liability insurance.

To make you feel better, the cost of professional liability insurance for Missouri physicians has been reduced a healthy 11.3%. Yet coverages are up. (See label on right.)

Plus, physicians in their first or second year of practice will receive substantial additional discounts.

Make your incision, cut the coupon and mail. Without obligation, we'll see that you get more information.

*Dividends cannot be guaranteed prior to being declared by Aetna's Board of Directors.

- 
- New for 1980, many options and packages to broaden and customize your protection.
 - No Partnership/Corporation or Employed Physician surcharges.
 - A Dividend Program which may reduce your insurance costs.*
 - A Loss Control and Education Program.
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Return to: William Dvorak - CID Manager
Aetna Life & Casualty
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Suite 450
St. Louis, MO 63141

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LIFE & CASUALTY

The Standard Fire Insurance Company



Tagamet®

brand of

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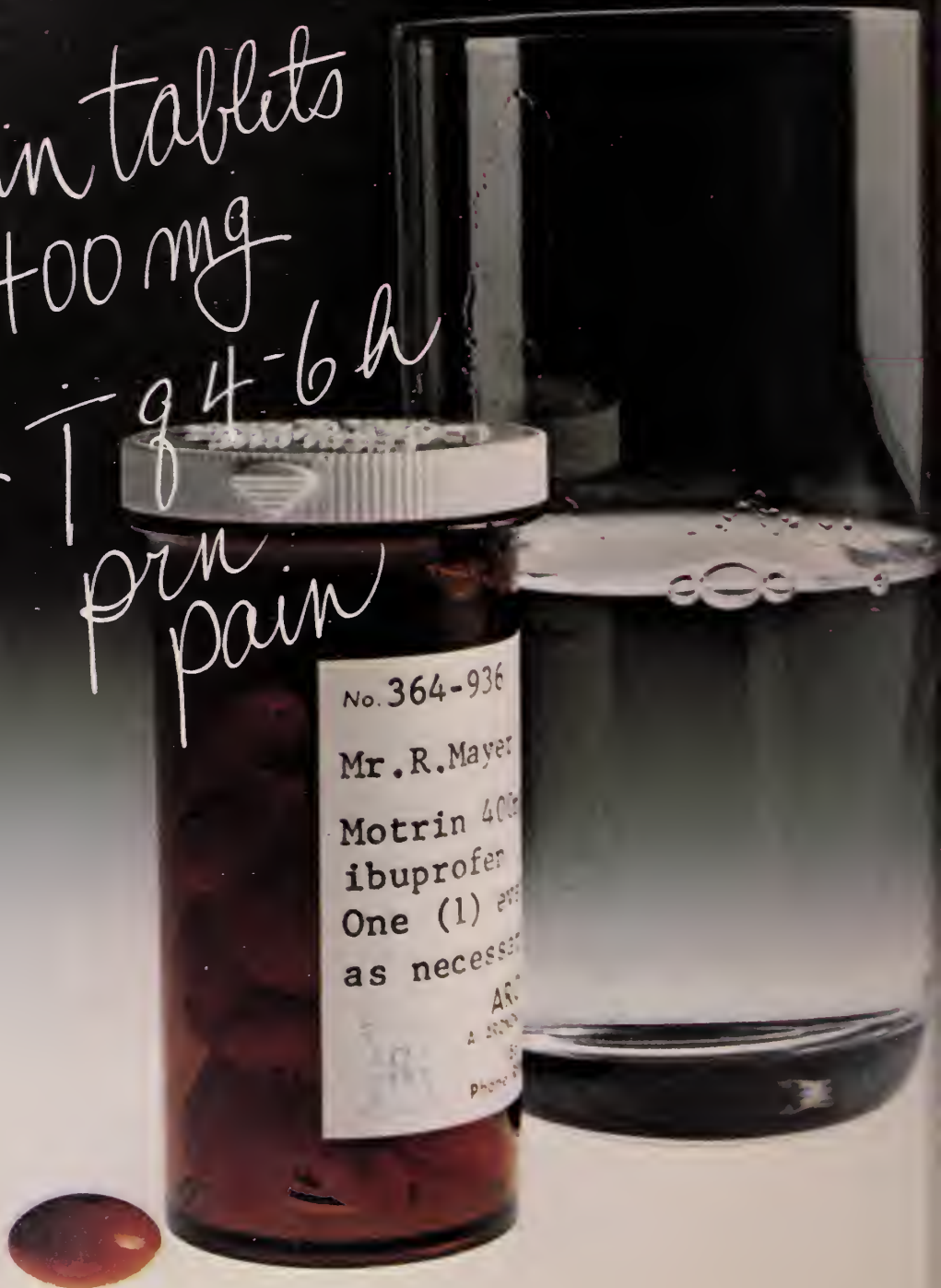
Pale green 300 mg. tablets
in bottles of 100 and Single Unit Packages of 100
(intended for institutional use only).

Injection, 300 mg./2 ml.,
in single-dose vials
and in 8 ml. multiple-dose vials,
both in packages of 10.

SK&F LAB CO.
a SmithKline company

A well-tolerated, nonnarcotic prescription for pain

Motrin tablets
400 mg
Sig T q 4-6 h
prn
pain



Motrin[®] now proved an effective analgesic for mild to moderate pain

Motrin 400 mg provided greater relief of pain than did propoxyphene 65 mg in controlled clinical pain studies.

Time after drug administration (hour)		.5	1	2	3	4
Mean relief-of-pain scores* (No. patients reporting)	Motrin 400 mg ibuprofen	.89 (108)	1.25 (108)	1.36 (108)	1.28 (107)	1.19 (106)
	Darvon 65 mg propoxyphene	.66 (100)	.99 (99)	1.13 (96)	.99 (96)	.80 (96)
Statistical significance		p<0.02	p<0.01	p<0.05	p<0.02	p<0.002

*0 = No relief 1 = Partial relief 2 = Complete relief

Data on file at The Upjohn Company

Motrin demonstrated statistically significant greater relief of pain than did Darvon at all time intervals.

Motrin 400mg TABLETS
ibuprofen, Upjohn

- Not a narcotic • Not addictive • Not habit forming
- Rapid analgesic action • Indicated in acute and chronic pain
- Well tolerated. The most common side effect with Motrin is mild gastrointestinal disturbance.

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin[®] (ibuprofen)

now proved an
effective analgesic for
mild to moderate pain

Motrin[®] Tablets (ibuprofen, Upjohn)

Indications and Usage: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. Aspirin used concomitantly may decrease Motrin blood levels.

Coumarin: Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy or by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400 or 600 mg t.i.d. or q.i.d.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.



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ZYLOPRIM[®]

the original (allopurinol)

100 and 300 mg

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The name
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MED B-4-S

Preliminary Program

MISSOURI STATE MEDICAL ASSOCIATION

122nd Annual Session

Crown Center Hotel, Kansas City

April 17-20, 1980

Thursday, April 17

- 8:00 AM Registration of Delegates, Century Foyer.
- 10:30 AM **House of Delegates, Opening Session.** Century Room.
- 1:00 PM Reference Committee Meetings.
- 6:30 PM Missouri State Surgical Society Board of Directors Cocktails (Governors Board Room) and Dinner (Senators Board Room).
- 6:30 PM MSMA Auxiliary Auction. Centennial "B" Room.

Friday, April 18

- 7:00 AM District Breakfasts — 1st Councilor District. Ambassadors Board Room.
5th Councilor District. Governors Board Room.
10th Councilor District. Senators Board Room.
- 7:00 AM Fun Run.
- 7:15-
- 11:30 AM Complimentary Coffee and Rolls. Century Foyer.
- 8:00 AM Registration. Century Foyer.
- 8:30 AM Missouri University Board of Directors Breakfast and Meeting. Westport Room.
- 9:00-
- 10:30 AM **General Session — "Physician, Heal Thyself."** Century Room.
Introduction: Andrew McCanse, M.D., Kansas City, MSMA President.
Speaker: Gordon H. Deckert, M.D., Oklahoma City, Okla., Professor and Head, Department of Psychiatry & Behavioral Sciences, University of Oklahoma.
- 11:00 AM-
- 12:30 PM **Scientific Session** Sponsored by the Missouri State Orthopedic Association. Shawnee Room.
11:00-
11:40 "Common Foot Problems in Athletes," Lawrence G. Evans, Jr., M.D., St. Louis, Assistant Professor of Orthopedic Surgery, St. Louis University School of Medicine.
11:40-
12:20 "Common Hand Injuries in Athletes," Barry Gainor, M.D., Columbia, Assistant Professor of Orthopedic Surgery, University of Missouri School of Medicine.
12:20-
12:30 Discussion from the floor
Moderator: Robert E. Burdge, M.D., St. Louis.
- 11:00 AM-
- 12:30 PM "Up-Date of Clinical Trials, National Surgical Breast Project." Independence Room.
Speaker: Paul G. Koontz, Jr., M.D., Kansas City, Clinical Professor of Surgery, University of Missouri Kansas City School of Medicine and Director of Surgical Residency Program, St. Luke's Hospital.
Moderator: Daniel J. Lauer, M.D., Kansas City.
Sponsored by the American Cancer Society, Missouri Division, Inc.
- 11:00 AM-
- 12:30 PM **Scientific Session** Sponsored by the Missouri Dermatological Society, Mission Room.
Speaker: E. Wm. Rosenberg, M.D., Memphis, Tenn., Professor of Dermatology, University of Tennessee.
- 11:00 AM-
- 12:30 PM "1980 Update in Clinical Medicine." Sponsored by the Missouri Society of Internal Medicine. Roanoke Room.
11:00-
11:30 "Outpatient Management of Asthma," Susan Pingleton, M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine.

- 11:30-
12:00 "Newer Concepts in Hodgkin's Disease," Adolphus C. Favors, Jr., M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine
- 12:00-
12:30 "Management of Diabetic Ketoacidosis — Selected Aspects," Stephen Hamburger, M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine.
Moderator: Stephen Hamburger, M.D., Kansas City.
- 11:00 AM-
12:30 PM *Scientific Session* Sponsored by the American Heart Association, Missouri Affiliate, Inc. Penn Valley Room.
Speaker: John Naughton, M.D., School of Medicine, State University of New York, Buffalo.
Moderator: Eugene Langevin, D.O.
- 11:00 AM-
12:30 PM "Sarcoidosis: How Should It Be Diagnosed?" Presidents Room.
Speaker: Richard B. Byrd, M.D., Scott Air Force Base, Ill., Colonel, U.S. Air Force; Chairperson, Department of Pulmonary Diseases, USAF Medical Center.
Moderator: Daniel L. Schlozman, M.D., Kansas City.
Sponsored by the Missouri Thoracic Society.
- 11:00 AM-
12:30 PM *Scientific Session* Sponsored by the Missouri Academy of Family Physicians. Centennial "B" Room.
Speaker: Seymour Diamond, M.D., Diamond Headache Clinic, Chicago, Ill.
- 12:30-
2:00 PM Missouri University Medical Alumni Luncheon. Century Room.
- 12:30 PM Missouri Thoracic Society Luncheon. Governors Board Room.
- 1:30 PM MOMEDICO Board Meeting, Independence Room.
- 2:00-
3:30 PM *Scientific Session* Sponsored by the Missouri Academy of Family Physicians. Centennial "B" Room.
Speaker: Seymour Diamond, M.D., Diamond Headache Clinic, Chicago, Ill.
- 2:00-
3:30 PM *Scientific Session* Sponsored by the Missouri State Surgical Society. Shawnee Room.
- 2:00-
4:00 PM *Mucocutaneous Candidiasis*. Mission Room.
2:00-
3:00 Charles Kirkpatrick, M.D., Bethesda, Md., Head, Clinical Allergy and Hypersensitivity Section, National Institutes of Health.
Moderator: Larry E. Millikan, M.D., Columbia.
- 3:00-
4:00 *Treatment of Common Dermatoses*
Panel to be Appointed.
Moderator: Gary Dyer, M.D., St. Joseph.
Sponsored by the Missouri Dermatological Society.
- 2:00-
3:30 PM "1980 Update in Clinical Medicine" (Continued).
Sponsored by the Missouri Society of Internal Medicine. Roanoke Room.
2:00-
2:30 "Pulmonary Embolism, Fact or Fancy," Robert Conn, M.D., Kansas City, Professor of Medicine, University of Missouri School of Medicine and Chairman, Department of Medicine, Truman Medical Center.
- 2:30-
3:00 "Drug Management of Peptic Ulcer Disease," Joel Covinsky, Pharm.D., Kansas City; Associate Professor, University of Missouri School of Medicine and Pharmacy.
- 3:00-
3:30 "Update on Venereal Disease," Charles K. McAllister, M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine.
Moderator: Stephen Hamburger, M.D., Kansas City.
- 2:00-
3:30 PM *Scientific Session* Sponsored by the Missouri Psychiatric Association. Presidents Room.
- 3:00-
4:00 PM Missouri State Medical Foundation Annual Meeting. Century Room.
- 4:00 PM House of Delegates, Second Session. Century Room.

- 6:00 PM Reference Committee Meetings.
6:00-
7:30 PM Reception Honoring Incoming MSMA Auxiliary President. Century Foyer.
6:30 PM Missouri State Surgical Society Cocktails & Dinner. Centennial "B" Room.
6:30 PM Missouri Society of Pathologists Cocktails (Westport Room) and Dinner (Presidents Room).
7:00 PM Missouri Dermatological Society Cocktails and Dinner. Mission Room.

Saturday, April 19

- 7:00 AM 10th Councilor District Breakfast. Senators Board Room.
7:00 AM Missouri Ear, Nose and Throat Association Breakfast. Governors Board Room.
7:30 AM Missouri Ophthalmological Society, Inc. Board of Directors Breakfast. Ambassadors Board Room.
7:30 AM MSMA Auxiliary Public Affairs Breakfast. Liberty Room.
8:00 AM Registration. Century Foyer.
8:00-
11:00 AM Complimentary Coffee and Rolls. Century Foyer.
9:00 AM-
4:00 PM *"The Story of an Impaired Physician."* Westport Room.
Featured Speaker: G. Douglas Talbott, M.D., Director of the Disabled Doctors Program for Medical Association of Georgia.
Sponsored by the MSMA Committee on the Impaired Physician.
9:00 AM-
5:00 PM *Cutaneous Surgery Course.* Liberty Room.
Speaker: Loren E. Golitz, M.D., Denver, Colo., Associate Professor of Dermatology and Pathology, University of Colorado Medical Center, Chief, Dermatology, Denver General Hospital.
Sponsored by the Missouri Dermatological Society and the American Academy of Dermatology.
9:00-
10:30 AM *Scientific Session* Sponsored by the Missouri OB-GYN Society. Centennial "B."
9:00-
11:00 AM *Immunodiagnosis and Immunoevaluation, 1980.* Shawnee Room.
9:00-
9:30 *Immunology, Basic Principles*, Larry E. Millikan, M.D., Columbia, Associate Professor, Division of Dermatology, University of Missouri School of Medicine.
9:30-
10:30 *Clinical/Cutaneous Manifestations of Immune Abnormalities*, E. William Rosenberg, M.D., Memphis, Tenn., Professor, Department of Dermatology, University of Tennessee.
10:30-
11:00 *Laboratory Evaluation of Immune Function, Part 1*, Charles Kirkpatrick, M.D., Bethesda, Md., Head, Clinical Allergy & Hypersensitivity Section, National Institutes of Health.
Moderator: Larry E. Millikan, M.D., Columbia.
Sponsored by the Missouri State Allergy Association.
9:00-
10:30 AM *Scientific Session* Sponsored by the Missouri Ophthalmological Society, Inc. Roanoke Room.
9:00-
11:00 AM *Scientific Session* Sponsored by the Missouri Ear, Nose and Throat Association, Inc. Penn Valley Room.
9:00 AM-
12:30 PM *Scientific Session* Sponsored by Physical Medicine and Rehabilitation. Independence Room.
9:30-
10:10 *"Nerve Entrapment in Lower Extremities,"* Jan McClain, M.D., Chicago, Professor of Rehabilitation Medicine, Northwestern University Medical School.
10:10-
10:40 *"Nerve Entrapment of Upper Extremities,"* Otakar Macheck, M.D., St. Louis.
10:40-
12:30 Panel Discussion.
9:00-
10:30 AM *"Meet Your AMA Delegates."* Mayors Board Room.
9:30-
11:30 AM Missouri Radiological Society Board Meeting. Trustees Board Room.

- 10:30 AM-
12:30 PM *Scientific Session* Sponsored by the Missouri Society of Anesthesiologists. Mission Room.
- 11:00 AM-
12:30 PM *Scientific Session* Sponsored by the Missouri OB-GYN Society. Centennial "B" Room.
- 11:00 AM-
12:30 PM *Scientific Session* Sponsored by the Missouri Society of Pathologists. Presidents Room.
- 11:00 AM-
12:30 PM *Scientific Session* Sponsored by the Missouri State Surgical Society. Shawnee Room.
- 11:30 AM Missouri Radiological Society Board Luncheon. Officers Board Room.
- 12:00 NOON Missouri State Allergy Association Luncheon and Meeting. Governors Board Room.
- 12:00 NOON Missouri Ophthalmological Society Inc. Luncheon. Garden Terrace.
- 12:30 PM Physical Medicine and Rehabilitation Luncheon. Senators Board Room.
- 12:30 PM Missouri Women Physicians Luncheon. Penn Valley Room.
- 12:30 PM Missouri OB-GYN Society Luncheon. Centennial "B."
- 12:30 PM Fifty-Year Club Luncheon. Ambassadors Board Room.
- 1:30 PM MMPAC Meeting. Mayors Board Room.
- 1:00-
4:00 PM *Scientific Session* Sponsored by the Missouri Radiological Society. Congressional Board Room.
- 1:00-
1:40 "Air Contrast Upper Gastrointestinal Studies; Technique and Cases," James K. Fisher, M.D.
- 1:45-
2:25 "Interventional Radiology of the Biliary Tract," Kendrick C. Davidson, M.D.
- 2:30-
2:55 "Inflammatory Bowel Disease as Seen on Air Contrast Barium Enema Examinations," James K. Fisher, M.D.
- 3:00-
3:40 "Epidural Venography," F. David Fortin, III, M.D.
- 4:00 Business Meeting — Missouri Radiological Society.
- 2:00-
4:00 PM Continuation of Scientific Session Sponsored by the Missouri State Allergy Association, Shawnee Room.
- 2:00-
2:30 Part 2, *Laboratory Evaluation*.
- 2:30-
3:15 *What's New in Immunologic Research/Reports from the Allergy Programs*.
- 3:15-
3:45 *Demonstration of Laboratory Tests*.
- 3:45-
4:00 *Questions and Answers*.
- Panel Participants: E. William Rosenberg, M.D., Memphis, Tenn.
Charles Kirkpatrick, M.D., Bethesda, Md.
Robert Dockhorn, M.D., Prairie Village, Kan.
Raymond G. Slavin, M.D., St. Louis.
- Moderator: Robert Dockhorn, M.D.
- 2:00-
3:30 PM *Scientific Session* Sponsored by the Missouri Society of Pathologists. Shawnee Room.
- 4:00 PM Missouri State Allergy Association Business Meeting. Governors Board Room.
- 5:00-
6:30 PM Missouri University Alumni Reception. Liberty Room.
- 5:00-
6:30 PM Washington University Alumni Reception. Shawnee Room.
- 5:00-
6:30 PM St. Louis University Alumni Reception. Mission Room.
- 6:30 PM MSMA Social Hour. Century Foyer.
- 7:15 PM MSMA Annual Banquet. Century Room.

Sunday, April 20

- 7:30 AM House of Delegates Breakfast Meeting. Century Room.
- 9:00 AM-
1:00 PM Missouri Dermatological Society Meeting — University of Missouri, Kansas City.

For hemorrhoids and other anorectal conditions



External hemorrhoids



Internal hemorrhoids



Pruritus ani



Proctitis



Anal fissures



Easy to handle,
easy to insert,
comfortably shaped—
Rx only

Easy to apply,
nonstaining—
Rx only

Prescribe **Anusol-HC[®]** Suppositories/Cream for symptomatic relief

- Effectively reduces inflammation and edema
- Rapidly relieves pain and itching

ANUSOL-HC[®] SUPPOSITORIES

Hemorrhoidal Suppositories

ANUSOL-HC[®] CREAM

Rectal Cream with Hydrocortisone Acetate

CAUTION: Federal law prohibits dispensing without prescription.

Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg, bismuth subgallate, 2.25%, bismuth resorcin compound, 1.75%, benzyl benzoate, 1.2%, Peruvian balsam, 1.8%, zinc oxide, 11.0%, also contains the following inactive ingredients: bismuth suboxide, calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg, bismuth subgallate, 22.5 mg, bismuth resorcin compound, 17.5 mg, benzyl benzoate, 12.0 mg, Peruvian balsam, 18.0 mg, zinc oxide, 110.0 mg, also contains the following inactive ingredients: propylene glycol, bismuth suboxide, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Indications: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain and discomfort in external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas; and relief of local pain and discomfort following anorectal surgery.

Anusol-HC Cream is also indicated for pruritus ani. Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol[®] Suppositories or Ointment.

Contraindications: Anusol-HC[®] Suppositories and Anusol-HC[®] Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparation.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts, or for prolonged periods of time.

Precautions: Symptomatic relief should not delay definitive diagnoses or treatment. If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Caution should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

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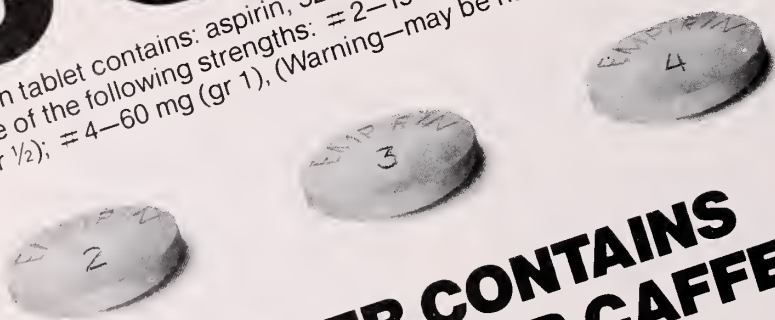
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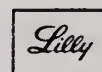
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Special Review Article

WILLIAM J. CATALONA, M.D., *St. Louis*

Current Concepts in the Management Of Renal Adenocarcinoma

RENAL ADENOCARCINOMA arising from the proximal tubular epithelium is the most common primary malignant tumor of the kidney. Available evidence suggests that the incidence of this tumor (three per 100,000 in women and eight per 100,000 in men) may be increasing in the general population.¹ Renal adenocarcinoma is more common in association with cigarette smoking, obesity and hypercholesterolemia,¹ but its cause is unknown. Except for patients having von Hippel-Lindau syndrome in whom there is significantly increased incidence of renal adenocarcinoma,² there is no established genetic predisposition for this tumor.³

Renal adenocarcinoma occurs most commonly in the sixth decade of life, but it can occur at any age, including childhood.⁴ Because renal adenocarcinoma is generally resistant to radiation and chemotherapy, cure depends on early diagnosis and prompt, complete surgical excision. In recent years, some new concepts in the management of patients with both localized and disseminated renal adenocarcinoma have evolved. These concepts are reviewed in this paper.

SIGNS AND SYMPTOMS

The most common presenting symptom of renal adenocarcinoma is gross, painless hematuria. Less common symptoms are flank pain or the awareness of an abdominal mass. Because

renal adenocarcinoma has the capacity to metastasize to any part of the body and to elaborate biologically active hormones, it can present with diverse manifestations such as seizures, thyroid nodules, skin lesions, oral cavity lesions, fever, hypertension, anemia, polycythemia, leukemoid reactions, hypercalcemia or hepatic dysfunction and others.⁵

Renal adenocarcinoma is a common malignancy that is generally resistant to radiation and chemotherapy but has one of the highest rates of spontaneous regression reported. In recent years, the development of newer diagnostic techniques and therapeutic approaches has changed the clinical management of patients with renal adenocarcinoma. The author reviews the diagnostic and staging procedures for patients with renal mass lesions, the surgical approach for patients with localized tumors and the management of patients with metastatic disease.

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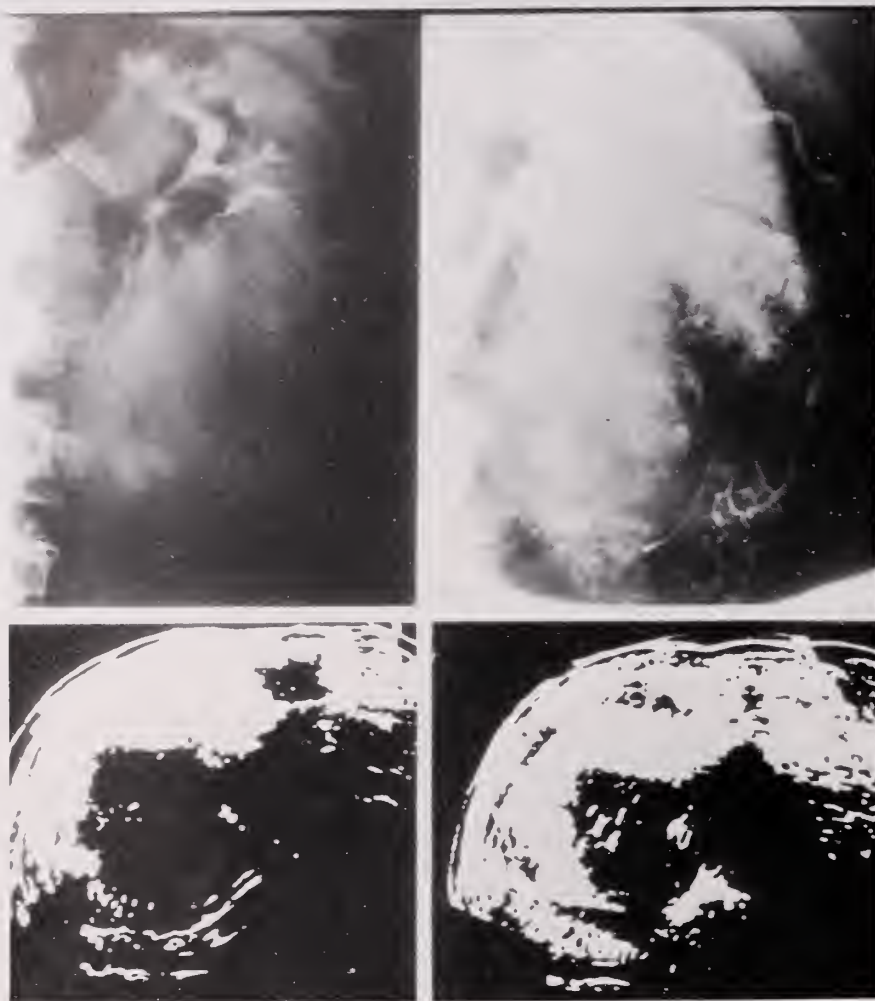


Fig. 1 Diagnostic findings of renal cell adenocarcinoma. (Top left) IVP shows a mass in lower pole of kidney. (Bottom right) Arteriogram shows neovascularity. (Bottom) Ultrasound study shows internal echoes in the mass.

DIAGNOSIS AND STAGING

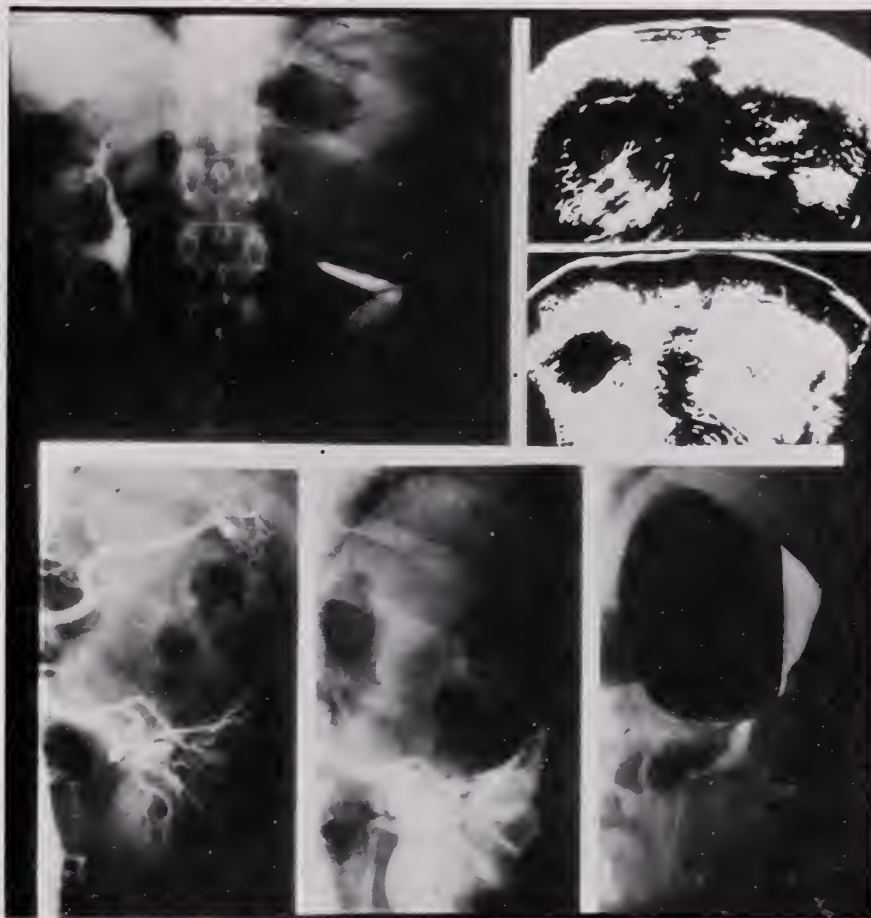
Renal adenocarcinomas are quite often detected as incidental findings during diagnostic studies (excretory urograms, bone scans or plain abdominal films) for other conditions. On excretory urography, a renal adenocarcinoma usually appears as a mass effect distorting the internal architecture of the renal collecting system (Fig. 1). The differential diagnosis includes xantho-granulomatous pyelonephritis, metastatic tumors, benign renal tumors, renal cysts and "pseudotumors" which are comprised of normal renal tissue in a hypertrophied column of Bertin. An orderly evaluation is indicated to distinguish among these possibilities.

A renal ultrasound study should be performed first to determine whether the mass is cystic (free of echoes) (Fig. 2) or solid (having internal echoes) (Fig. 1). If the mass has all of the classic characteristics of a cyst by urographic and ultrasound criteria (thin wall, smooth interface with the renal

parenchyma, no enhancement with contrast material, sonolucent), no further evaluation is indicated. If there is any uncharacteristic feature present, a cyst puncture should be performed to withdraw fluid for cytologic examination and to inject contrast material to outline the internal contours of the cyst (Fig. 2). If the aspirated fluid is bloody or is found cytologically to contain cancer cells, or if contrast material shows a thick wall or an irregular outline (Fig. 3), the kidney should be explored surgically.

Simple renal cysts are common in the general population, occurring in approximately 50% of patients over the age of 50 years.⁶ Computerized tomography also can frequently help solve diagnostic problems concerning renal mass lesions following an indeterminate ultrasound study.⁷ If the ultrasound study reveals internal echoes (Fig. 1), an arteriogram should be considered, although this is not absolutely essential since approximately 15% of renal adenocarcinomas will not exhibit neovascularity.⁸ An arteriogram does af-

Fig. 2 Diagnostic findings of a renal cyst. (Top left) IVP shows a mass lesion in upper pole of kidney. (Top right) Ultrasound shows echo-free mass. (Bottom left and center) Arteriogram shows that the mass is avascular. (Bottom right) Cyst puncture contrast study shows smooth internal contour.



ford the advantage of demonstrating the renal arterial supply as well as virtually establishing the diagnosis of cancer in most cases.

In extremely hypervascular tumors, preoperative angioinfarction of the tumor can facilitate the surgical removal of the tumor and sometimes proves quite useful.⁹ Because the overwhelming majority of solid renal masses prove to be malignant tumors, patients having solid renal masses should be considered to have renal adenocarcinoma and be treated as such unless special circumstances dictate otherwise.

Once the clinical or radiographic diagnosis of renal adenocarcinoma has been made, further studies should be performed for staging the tumor. The most common sites of spread from renal adenocarcinoma are to the lungs, liver, bones, regional lymph nodes and, less commonly, direct extension into the vena cava. Accordingly, proper staging should include full chest tomograms, bone scan and inferior vena cavagram (Fig. 4).

Hepatic and lymph node metastases are much more difficult to rule out by noninvasive tech-



Fig. 3 Cyst puncture contrast study shows irregular contour with filling defect caused by tumor.

niques and, therefore, are best evaluated at the time of surgical exploration unless there is gross clinical evidence of involvement that can be documented by needle biopsy. In this regard, abnormalities of liver function tests cannot be regarded as absolute evidence of metastatic dis-



Fig. 4 Inferior vena cavagram shows complete occlusion of the vena cava at the level of the renal veins with extensive collateralization.

ease since hepatopathy is sometimes associated with nonmetastatic renal adenocarcinoma.^{10, 11} Liver biopsies in these cases have revealed only hyperplasia of Kupffer cells. The abnormal liver function tests often return to normal following removal of the tumor, which indicates a favorable prognosis. If abnormalities persist after resection, it indicates a poor prognosis.¹¹ Computerized tomography is probably the most accurate noninvasive means of screening for gross liver metastases.

TREATMENT

Localized Tumor

Complete surgical excision of the primary tumor and any local or regional extension of it offers the only chance for cure in patients with renal adenocarcinoma. In the past, simple nephrectomy was employed as the standard procedure. However, local tumor recurrences in the renal fossa or the regional lymph nodes in addition to distant metastases have been documented in up to 20% of patients.^{12, 13} In the late 1940s, Mortensen¹⁴ and Chute and Soutter¹⁵ advocated



Fig. 5 Right renal fossa after completion of radical nephrectomy with regional lymphadenectomy. Vena cava is being retracted to the right and the white tape is around the inferior mesenteric artery.

performing a thoracoabdominal radical nephrectomy in which the kidney and its surrounding fibro-fatty envelope of Gerota's fascia are resected *en bloc* along with regional retroperitoneal lymph nodes. Robson's five-year survival results using this extended surgical approach are about 20% better than those in previously reported series.¹⁶

Thus, it seems that utilization of radical thoracoabdominal nephrectomy may afford complete tumor excision in patients with limited local extension or regional lymphatic involvement where more limited surgical procedures might fail.^{3, 14} It is now well documented that long term, tumor-free survivals can be achieved in some patients with limited lymph node metastases, although, in general, the survival in patients with lymph node metastases is poor.^{3, 16} Likewise, tumor extension into the vena cava does not preclude the possibility of surgical cure.³ Partial or complete resection of the infrahepatic portion of the vena cava can be readily accomplished with acceptable morbidity and still offer the patient a chance for cure. As with patients having lymph node metastases, patients with direct vascular extension have a more guarded, but not hopeless, prognosis.^{3, 17, 18}

In patients having renal adenocarcinoma in a solitary kidney or in rare cases of bilateral renal adenocarcinoma, partial nephrectomy has yielded surprisingly good survival figures with about 50% of patients surviving five years.^{19, 20} In this clinical setting, therefore, complete excision of all renal tissue with subsequent hemodialysis and renal transplantation should be reserved for those patients in whom partial nephrectomy is not feasible.

Metastatic Tumor

Opinions conflict about the preferred management of patients with clinical evidence of metastatic disease except for those having solitary metastases. In patients with solitary metastases, excision of the primary tumor along with the metastatic lesion is generally recommended when it can be readily accomplished. This therapy has produced some long term, tumor-free survivals.^{3, 21-23}

Considerable controversy surrounds the management of patients with multiple metastases. There is some evidence to suggest that in patients with osseous, but not pulmonary, metastases, survival is improved if the primary tumor is resected,^{24, 25} but there is also other evidence to the contrary.²⁶ The importance of this controversy is underscored by the fact that almost one third of patients with renal adenocarcinoma have metastatic disease at the time of diagnosis,^{3, 21} and less than 3% of patients have just solitary metastases.^{21, 23, 26} Because renal adenocarcinoma is highly resistant to cytotoxic chemotherapy and because hormone therapy with progesterone or testosterone or both is rarely effective, the vast majority of patients with metastatic renal adenocarcinoma die of their disease within two years of the time of diagnosis.²⁶

Immunotherapy

Renal adenocarcinoma has one of the highest rates of spontaneous regression among solid tumors. Approximately 50 acceptable cases of apparent spontaneous regression of metastases from renal adenocarcinoma have been documented in the literature, of which the vast majority were pulmonary.²⁷ About 70% of these spontaneous regressions followed removal of the primary tumor. It has been speculated that host immune mechanisms may be involved in these spontaneous regressions. Cell surface antigens on renal adenocarcinomas have been demonstrated repeatedly, and a number of clinical immunotherapy trials have been initiated.^{25, 28}

Although these trials have yielded some cases that seem to show benefit from immunotherapy, they have not been adequately controlled to provide a clear picture of the efficacy of immunotherapy. Recently, preoperative angioinfarction of the primary tumor followed one week later by nephrectomy has been advocated as a form of immunotherapy, but no good immunologic studies have substantiated a rational basis for this form of therapy.²⁹ To this end, we

have recently initiated a prospective, randomized trial of immunotherapy at the Washington University Medical Center using a vaccine derived from patients' own tumor cells that have been infected and lysed by vaccinia virus.

Management of Secondary Manifestations of Renal Adenocarcinoma

As mentioned above, there are numerous secondary manifestations of renal adenocarcinoma that require medical treatment. Pain and bleeding from the primary tumor are often best managed by nephrectomy. However, when nephrectomy is not feasible either because of the size of the tumor or the patient's general medical condition, angioinfarction or radiation therapy sometimes prove beneficial. Radiation therapy is often effective in relieving pain from osseous metastases and in controlling the manifestations of central nervous system metastases. Limited resection, curettage and internal fixation of skeletal lesions can preserve function and relieve pain.

Systemic and metabolic derangements induced by renal adenocarcinoma, such as fever, hypertension and anemia, are treated by conventional means. Hypercalcemia induced by ectopic prostaglandin secretion should be treated with indomethacin or aspirin, while hypercalcemia induced by ectopically produced parathormone is best treated by saline diuresis and infusions of thyrocalcitonin.³⁰

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(Continued on page 26)

The Fractured Scapula

Significance and Prognosis

VERY LITTLE has been published in radiological literature describing the incidence, classification and prognosis of fractures of the scapula.¹⁻³ This retrospective study was undertaken to assess the frequency of this injury and to determine its significance and long-term prognosis. Cases were carefully analyzed for the injury, the presence of associated injuries and the eventual function of the involved upper extremity.

MATERIALS AND METHODS

Over a period of four years, an attempt was made to retrieve all radiographs and hospital records on patients for whom a diagnosis of fractured scapula had been made. Patients were contacted for subjective and objective assessment of functional results and, where possible, additional follow-up radiographs of the involved scapula were obtained and reviewed. One patient had fractured both scapulae simultaneously. The left:right ratio was 19:20. The oldest patient was 76, the youngest ten. The mean age was 31. Thirty of the 38 patients (79%) were male.

Fractures were classified according to anatomic-

This review of 38 patients with fractures of the scapula was undertaken to assess the incidence of major associated injuries and the functional outcome of the involved upper extremity. Fifty-seven percent had associated injuries known to have a significant incidence of fatal outcome when not promptly recognized and treated. The author concludes that the fractured scapula should alert both the primary care physician and the consulting radiologist to search diligently for serious associated injuries.

Dr. Gleich is from the Department of Radiology, University of Missouri School of Medicine.

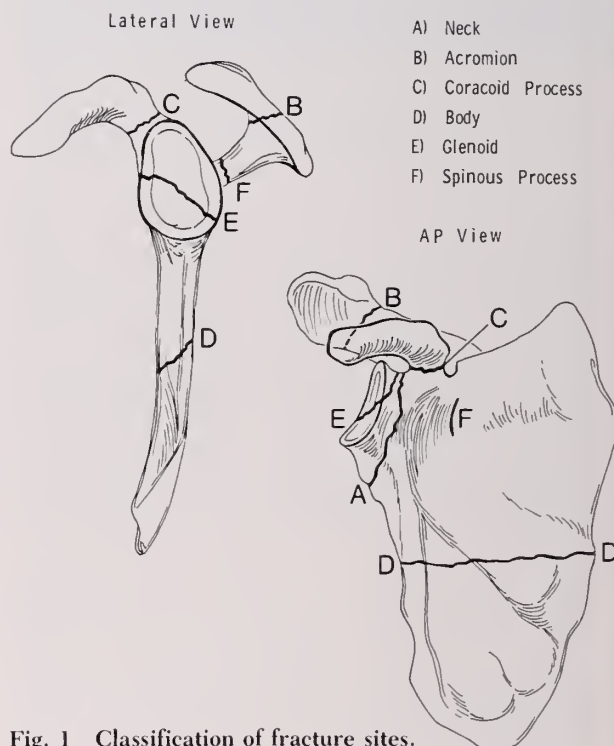


Fig. 1 Classification of fracture sites.

cal site(s) on the scapula (Fig. 1) (neck, acromion, coracoid process, body, glenoid, spinous process) (Table 1). Two entities (normal epiphysis and prominent vascular grooves) which could be mistaken for fractures were also included since the patients with these findings had been injured and were being examined to rule out fractures.

RESULTS

Twenty-one (56%) of scapula fractures occurred in automobile or motorcycle accidents. Gunshot wounds accounted for an additional four (10%) and falls accounted for five (13%) (Table 2). Fifty-seven percent of the patients had associated major injuries of life-threatening magnitude. The most common of these were six patients (16%) with closed head trauma and an identical number who had ruptured abdominal organs.

TABLE 1
SITE OF SCAPULAR FRACTURE

Neck	12	32%
Body	28	74%
Acromial Process	6	16%
Coracoid Process	5	13%
Glenoid	10	26%
Spinous Process	6	15%
Nutrient Vessel	2	8%
Epiphysis	1	3%

Note: The percentages total well over 100% because many patients had fractures that involved more than one site on the scapula.

TABLE 2
NATURE OF INJURY

Automobile	15	40%
Motor cycle	6	16%
Gunshot Wound	4	10%
Fall	5	13%
Hit by Train	1	2½%
Crush Injury	3	8%
Single Direct Blow	3	8%
Unknown	1	2½%

Two patients suffered sufficient damage to the upper extremity to make amputation necessary. One patient required a fasciotomy of the upper extremity for neuro-vascular decompression.⁴ One patient had such chronic pain that a stellate ganglion block was done. The vast majority of patients had only a shoulder immobilizer for the injured shoulder. Only three patients were treated with upper extremity traction. Several patients received no treatment for the fractured scapula because other injuries made this difficult or impossible.

Only six (16%) of the patients had no known associated injury. These patients invariably recovered uneventfully. Eleven of the patients (29%) suffered significant long-term disability, including two deaths and two amputations (Table 3). All other patients recovered use of the involved shoulder with few or no complaints.⁵

RADIOGRAPHIC FEATURES

If the patient's condition permitted, radiographs were made in anteroposterior (AP), 30° posterior oblique, axillary and lateral projections. Fractures were classified as involving one or a combination of six anatomical sites on the scapula (Fig. 1). Twenty-eight fractures (74%) involved the body (Fig. 2); 12 (32%) involved the neck (Fig. 3 & 4) and ten (26%) (Fig. 3) involved the glenoid. The latter site tended to result in a longer recov-

TABLE 3
LONG TERM DISABILITY

Died	2	5%
Amputation	2	5%
Useless Limb	1	3%
Significant Neurologic Residual	4	10%
Significant Decreased Range of Motion	2	5%



Fig. 2 Fracture of the body and neck.



Fig. 3 Fracture of the neck and glenoid.



Fig. 4 Fracture of the neck and spinous process.

ery period and a higher incidence of decreased range of motion. Our series included entities which the inexperienced could easily mistake for fractures — prominent vascular grooves and normal epiphysis. Most of the long-term disability was due to associated soft tissue injury (Table 2). The isolated scapula fracture tended to have a good result after healing.

DISCUSSION

For the majority of our patients, major trauma to the entire body was associated with the fractured scapula. The high incidence of associated injuries attests to this (Table 4). Only a minority received lesser trauma at precisely the location to produce a fractured scapula as the only significant

TABLE 4
ASSOCIATED INJURIES

Rib Fractures	12	32%
Fractures of Upper Extremity	11	29%
Closed Head Trauma	6	15%
Pneumothorax or Flail Chest	5	13%
Pelvic Fractures	3	8%
Fractures of Low Extremity	6	15%
Ruptured Abdominal Organ	6	16%
Brachial Artery or Vein Injury	2	5%
Brachial Plexus Injury	4	10%
Skull or Facial Fracture	5	13%
Spinal Fracture	2	5%
Clavical Fracture	5	13%
No Significant Associate Injury	6	16%

Note: Some patients had more than one associated injury, so the total percentages is more than 100%.

injury. For those in whom there was no associated injury, the eventual result was excellent with conservative treatment. The high percentage of serious associated injuries (57%) and the significant number of poor results (29%) should alert radiologists to search carefully and not regard the fractured scapula as merely as incidental isolated finding. Likewise, in the patient with multiple injuries, radiologists should be careful not to overlook the scapula and should obtain additional views where indicated.

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Management of Ingested Foreign Bodies in the Esophagus in Children

INGESTION OF FOREIGN BODIES of many descriptions is common in children. Swallowed foreign bodies that reach the stomach almost always pass through the remaining intestinal tract, producing little or no harm. This is true regardless of their size, shape or consistency. Symptoms caused by foreign bodies trapped in the esophagus include retrosternal pain, dysphagia and, at times, overflow salivation. Management should be determined by the physical characteristics of the object, the length of time the object has been present and the state of the esophagus at the time of ingestion.

Sharp-edged or irregularly shaped foreign bodies lodged in the esophagus require removal under direct vision to prevent injury. This also is true of foreign bodies whose characteristics cannot be clearly defined by history or radiographically. Objects lodged in the esophagus for an undetermined length of time or longer than 72 hours should be removed under direct vision because the associated inflammatory process may place the esophagus at a greater risk of injury. Generally, this also would apply when dealing with an esophagus known to be abnormal at the time of ingestion. The situations noted above ordinarily would require hospital admission, general anesthesia and esophagoscopy.

Fortunately, most swallowed foreign bodies are easily definable in regard to physical characteristics, time of entry and present location. Most swallowed foreign bodies are smooth and visible radiographically. Coins represent by far the majority of swallowed foreign objects. When the foreign body is definable as smooth, the entry time is known to have been less than 72 hours previously, its position is determinable and removal by simpler means is safer, less costly and more expeditious.

Ingested foreign bodies usually lodge at the pharyngoesophageal junction, the region of the aortic arch and, less commonly, at the cardioesophageal junction. Foreign bodies lodged at the pharyngo-esophageal junction may be removed under direct vision with the aid of a laryngoscope

and a Magill forceps. This may be done with or without topical anesthesia for the child as an outpatient.

Suction with a Yankauer suction forceps should always be available to insure good visibility and to prevent aspiration if regurgitation occurs. Sixteen consecutive patients have been managed with this technique. Fifteen objects were retrieved with no complications. One object passed into the

Ingestion of foreign bodies by children is common. In some cases in which these objects become lodged in the esophagus, hospitalization of the patient is required. However, most foreign bodies can be removed immediately under defined conditions without complications and the patient is sent home immediately after the procedure. In the author's experience, these methods proved to be safe, effective and efficient for 100 consecutive patients.

Dr. Danis is from the Department of Surgery, Cardinal Glennon Memorial Hospital for Children and St. Louis University School of Medicine.

esophagus during manipulation and was found in the stomach by radiographic examination. This object passed uneventfully through the intestinal tract.

Foreign bodies that are arrested at the cardioesophageal junction and meet the criteria for manipulation without direct vision are best treated by advancing the object into the stomach. This is readily accomplished by transoral passage of a Hurst (Mercury weighted, rubber esophageal dilator) into the stomach. The diameter of the dilator should approximate the diameter of the patient's thumb. This method has been employed 31 times by the author. Each time, the object was advanced into the stomach and passed through the intestinal tract without incident.

Foreign bodies lodged in the region of the aortic arch might well be managed as those whose

passage arrests more distally. However, we have preferred to extract these foreign bodies since this can be easily accomplished.

The method for extracting foreign bodies of the esophagus with a Foley catheter under fluoroscopic control is well documented.¹⁻³ There is little reported experience using this method without the adjunct of fluoroscopic control. There are some theoretic advantages to be considered. The lack of appropriate radiographic equipment or an immediately available radiologist may be a hindrance to prompt management. Retrieval of the foreign body from the pharynx after extraction from the esophagus may be better accomplished in a well-lit and well-equipped emergency room.

After the position of the object is determined by x-ray and the criteria for safe extraction are provided, the patient is placed on the table in a supine position. All necessary equipment is assembled on a nearby table. Suction with a Yankauer suction forceps is always available to insure a means of clearing the pharynx of secretions. Sedation is not usually administered but may be needed for the very apprehensive patient.

Transnasal passage of the Foley catheter provides better control than transoral passage. The size of the Foley catheter used varies from a #8 to a #14, Fr., depending upon the size of the patient. The balloon is pretested for integrity and size of inflation. The volume of fluid to be used should be equal to that amount which will inflate the balloon so that its diameter approximates the diameter of the patient's thumb.

Topical anesthesia is applied to the nasal passage to be used. The degree of restraint varies with the patient. An Olympia papoose board is employed for infants and smaller children. Older children usually require little restraint and their cooperation is employed to expectorate the object when it is delivered into the pharynx.

The length of the catheter, which must be advanced to insure that the balloon is delivered beyond the foreign body, is measured and marked externally prior to the procedure. The catheter is

then advanced to the predetermined position. The balloon is inflated and the catheter gently extracted. Resistance should occur only as the foreign body and balloon pass through the cricopharyngeus. When the resistance ceases, the foreign body should be promptly removed.

Older children are repositioned in a prone position prior to the extraction and instructed to expectorate the foreign body. Infants and young children cannot be depended upon to do this. Prior to extraction, a Jennings (self-retaining) extractor is inserted to maintain an open oral passage. When the extraction occurs, a laryngoscope is inserted and the foreign body visualized and removed with a Magill forceps.

In those cases in which the coin is not located, the procedure is repeated by passing the catheter to a somewhat lower position prior to extraction. If the second effort fails, the coin will be found in the stomach in most instances and uneventful passage can be expected. In all other instances in our experience, the foreign body was located at the gastroesophageal junction and was advanced into the stomach with a Hurst dilator.

Sixty-two patients have been managed by this technique. There have been no complications and all patients have been sent home immediately after the procedure. Fifty-seven coins were extracted; the remainder passed through the intestinal tract.

Under defined conditions, many foreign bodies in the esophagus can be managed without direct vision or fluoroscopic control. For more than 100 consecutive patients, these methods proved to be safe, effective and efficient.

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As for being known much by sight, and pointed at. I cannot comprehend the honor that lies in that. Whatsoever it be, every mountebank has it more than the best orator, and the hangman more than the Lord Chief Justice of a city.

Abraham Cowley:
"Of Myself," 1665

IK-WHAN KWON, Ph.D., RALPH T. OVERMAN, Ph.D.
and JOE H. KIM, Ph.D., *St. Louis and Springfield, Ill.*

Consumer Information on Health Care Costs

Preliminary Results

THE FEDERAL TRADE COMMISSION's adverse ruling on the American Medical Association's stand that physicians cannot advertise their fees apparently has created some controversy in the health care fields. The major reason for the FTC's ruling is that the existing AMA's position restricts fair competition among physicians thereby creating a de facto price fixing structure in the health care market. The implication of the ruling could be that the physicians' advertisement of their fees could contribute to health care cost containment. Furthermore, a recent consumer survey reveals that the cost of health care ranks second among 19 pressing problems which worry consumers a great deal.¹ The same survey notes that hospitals also rank second in 26 industries which should receive the most attention from the consumer movement.

The purpose of this research is to investigate the degree of consumer knowledge on health care cost and to ascertain their opinions regarding the FTC's ruling on the physicians' advertisement. The major issue of this research is: "Will the consumers be willing to exercise their choices as to the selection of physicians or hospitals or both if such information as physician's fee and hospital charge are readily available through normal advertising media?" This research was begun before the FTC's decision on physician's advertising in November, 1978. Accordingly, the FTC's ruling should have had no effect on the opinions of consumers as well as the providers of the health care.

STUDY DESIGN

This study employed the telephone survey method to collect the baseline information. Three different sets of questionnaires were developed for this research: Questionnaire A for those who have been admitted to short term acute care facilities within the last two years (called Group A), Questionnaire B for those who have not used health care facilities for the last five years or longer (called Group B); and Questionnaire C for

This survey was designed to "uncover" the consumers' knowledge of health costs and their opinions regarding the Federal Trade Commission's ruling on advertising by physicians. It revealed that a majority of consumers and providers are willing to see fees and costs advertised. The trend, however, is basically due to the philosophical conviction of the free enterprise concept of this country rather than to the economic conviction that the advertising will actually reduce health care costs.

Dr. Kwon is from the St. Louis University and Sisters of St. Mary Data Center. Dr. Overman is from the RMEC. Dr. Kim is from Sangamon State University, Springfield, Ill.

This study is a part of an extensive statistical analysis of health care cost information and was conducted in the St. Louis Metropolitan Statistical Area.

health care providers such as practicing physicians and hospital administrators (called Group C). Any health care consumers who were admitted to a hospital during the last three to five years were excluded from this survey.

The questionnaires were pretested locally in early September, 1978 for further improvement. The revised questionnaires were given to a randomly selected sample of 50 for Group A, 250 for Group B and 50 for Group C in the St. Louis Metropolitan area. The sample of 250 in Group B amounts to 0.015% of the entire population in the metro area including the Illinois side of the region. Since, in 1978, about 16% of the total population of this country used health care facilities at one time or another for various reasons, this study selected 50 respondents for Group A. A random sample size of 30 were taken from the practicing physicians and 20 were from the hospital administrators in this region for Group C.

TABLE 1
SOCIOECONOMICS CHARACTERISTICS OF SAMPLES AND POPULATION (PERCENT DISTRIBUTION)

	Samples		U. S. (%)	St. Louis Metro (%)
	GROUP A (%)	GROUP B (%)		
Sex				
Men	48	41	49	46
Women	52	59	51	54
Age				
18-24 years	12	4	19	16
25-35 years	28	30	23	16
36-55 years	32	26	30	31
55 and older	28	40	28	37
Education				
Under 12 years	57	50	60	61
12-16 years	23	27	26	27
Over 16 years	20	23	12	15
Income Level (Per Year)				
Under \$10,000	25	20	30	29
\$10,000-\$15,000	20	26	20	18
\$15,000-\$25,000	30	30	32	34
\$25,000 and over	25	24	18	19
Type of Residence				
City	30	29	80*	30
Suburb	61	65		60
Rural	9	6	20	10

Sources: St. Louis Metropolitan: *St. Louis Statistical Abstract*, 1977. United States: *Statistical Abstract of U. S.*, 1977.

* City and suburb combined.

In order to achieve a broad sample base within a sampling space, the following simple formula was used:

$$\text{Number of Samples within a municipality} = (\text{Number of Telephone Exchanges} \times 2) - 1.$$

For example, nine elements were selected from a municipality within a suburb which has five telephone exchanges as determined by $5 \times 2 - 1 = 9$. Initially five samples were assigned to the five exchange numbers. The remaining four samples from the municipality were randomly selected from the five possible exchange numbers. For the rural areas where the exchanges are very few, the sparsely populated towns which are relatively close to one another were grouped into "two's." The exchanges from each rural grouping provided the possible exchange from which an appropriate number of respondents were selected.

For Group C, hospital administrators were sampled based on geographical boundary (city, suburb and rural) by the proportion of beds to total beds for this metropolitan area.² According to our survey, this region has a total number of 15,469 beds as of 1977. The proportion of hospital beds for city, suburb and rural sampling areas are 63%, 34% and 3%, respectively.³ Since only one hospital is located in the rural area, that hospital

administrator was selected automatically as a candidate of this survey. Twelve hospital administrators from the city and seven administrators from the suburb were randomly selected for this study.

The practicing physicians were selected at random based on the population for the city, suburb and rural. The main source of the information of this sample is the 1977 *Physicians Directory* of St. Louis Metropolitan area.

The entire population of this region is stratified into various socioeconomic characteristics to insure the unbiased representation of the sample elements.⁴ As shown in Table 1, there seems to be no significant differences of socioeconomic characteristics between the selected samples and population in both categories. Within each geographical sampling area (city, suburb and rural areas), the elements were further stratified by political boundary (cities, municipalities and street) to insure the cross-sectional participation of the population.

The actual telephone survey was carried out by trained personnel from St. Louis University either during the evening or the weekend or both in the months of October and November, 1978 to insure that the working population is to be included in the survey. If the element in question was not eligible based on socioeconomic specifi-

TABLE 2

CONSUMERS' INFORMATION ON HEALTH CARE COST* FOR GROUP A

Questions	Yes	No
1. Did anyone (physician or hospital) inform you of the expected cost of your hospitalization?	14%	86%
2. Have you ever seen your doctor's or hospital bill yet?	80%	20%
3. Do you think it is beneficial for your decision-making process to be informed about the total cost of your care?	61%	23%†
4. Does it make any difference to you as to the selection of your physician or hospital or both if the estimated costs were given to you prior to your admission to the hospital?	48%	52%

* When the results of this question are correlated against the level of education and income of the respondents, there is a statistically significant difference at a 90% probability that the higher the level of education and income, the higher the proportion who saw the bills. However, they do not believe that the cost information prior to their admission is helpful in making the final decision.

† 16% of the sample expressed no opinions on this question.

cations or was unwilling to participate, then the next element was selected from the predetermined contingency random table.^{5, 6} Once the sampling process was completed, the principal investigator of this research study randomly selected 5% of the completed questionnaires from each group (three from Group A, 13 from Group B and three from Group C) and conducted a confirmation survey via telephone for accuracy and reliability of the initial survey. There was a very small discrepancy of information (less than 1%) between the initial and confirmation survey. The entire sampling process, including the confirmation survey, was completed during the month of November 1978.

SURVEY RESULTS

A. Degree of Consumers' Information on Health Care Cost

Almost 90% of the samples from Group A (those who had been admitted to a hospital during the last two years) were never informed of the expected cost of the doctors' fee and hospital charges by anyone and, surprisingly, 20% of the total sample indicated that they had never even seen their bill upon discharge (Table 2). The majority (61%) believe that it would be beneficial for their decision-making process if they were informed of the estimated cost prior to admission to a hospital. It is interesting to note that almost half of the

TABLE 3

CONSUMERS' WILLINGNESS TO SELECT PHYSICIANS AND/OR HOSPITALS IN GROUP B*

Questions	Yes	No
1. If you were to go to a hospital for an extended stay, would you ask your physician(s) and hospital the expected costs?	63%	37%
2. If they (physicians or hospital or both) advise you of the expected costs, would you like to compare them with other doctors or hospital?	46%	54%
3. Would you like to see if the cost of health care is readily available to you via the yellow pages or other media?	74%	26%

* The respondents with a high income level (\$25,000 or more) expressed their unwillingness to ask the expected costs prior to their admission to the hospital. Such a result is statistically significant at 0.05 level.

consumers in this group believe that their decision as to the selection of a physician or hospital or both would have been different had the estimated costs been provided prior to their hospitalization.

B. Degree of Consumers' Willingness in the Selection of Physicians and Hospitals

There is definite evidence now that consumers are willing to ask the estimated cost of doctors' fees and hospital charges prior to their admission to a hospital. More than 60% of the samples in Group B (those who have not been hospitalized) agreed that they would ask for the cost (Table 3). Although the majority of the consumers in this category expressed their willingness to ask for the cost information, only 46% of the sample are willing to compare their costs with others before they make the final decision. The majority of the consumers (74%) believe that the cost information on health care should be readily available to them via the usual media, such as the yellow pages and others.

C. Advertisement of Health Care Cost

The critical finding from this survey is the degree of confidence displayed by consumers and providers regarding the reduction of health care cost via advertisement. When the preceding question was addressed to the three different groups (Groups A, B and C), the results were mixed as shown in Table 4.

Surprisingly, more than 60% of Group B agreed that advertising will help to reduce health care cost. The consumers in Group A were less convinced (44%) than those in Group B. As expected,

TABLE 4
ADVERTISEMENT OF HEALTH CARE COST AND CONTAINMENT OF HEALTH CARE COST*

Questions	Group A		Group B		Group C	
	YES	NO	YES	NO	YES	NO
1. Do you believe that the advertisement of health care costs will help to reduce the cost of health care?	44%	40%†	64%	36%	18%	82%
2. Do you think the physician and/or hospital should be allowed to advertise their fees in yellow pages or some other media?	77%	23%	84%	11%‡	47%	53%

* When the result of this question is correlated against the occupations, the white collar worker and professional feel more strongly than any other group that the health care providers should be allowed to advertise their fees.

† 16% of the sample expressed no opinion on this question.

‡ 5% of the sample expressed no opinion on this question.

the providers (Group C) disagreed strongly (82%) with the implication that advertising will reduce health care cost.

The consumers as well as the providers were more receptive to the idea of advertising the fees in the media. More than 80% of the consumers in Group B and almost an identical portion (77%) in Group A agreed that physicians and hospitals should be allowed to advertise their fees. However, the providers were not that enthusiastic about the idea of advertising their fees in the media (47%).

DISCUSSION

Among other findings of this study, it is highly important to cautiously interpret the results in Table 4 since it created some conflicting findings. As shown in Table 4, there are significant differences of responses to two questions by three groups. It was found that 77% of the consumers in Group A believed that the providers should be allowed to advertise their fees, but only 44% of the same sample actually thought that advertising would reduce the cost. The point separation is 20% for Group B as shown in Table 4. The logical inference of such divergent responses could be their (consumers) conviction of a free enterprise system. In other words, the samples might have responded to the questions based more on the philosophical conviction of the value of the free enterprise concept in this country than the economic importance that the advertisement, indeed, will help to reduce the cost. The preceding analysis can be further supported by the evidence shown in Group C of Table 4. As pointed out, the providers strongly disagreed that advertising will reduce the cost (82%). Nevertheless, almost 50%

of the same group agreed that they should be allowed to advertise their fees.

CONCLUSIONS

The majority of the consumers who used health care facilities were either unaware of their costs or not informed by the providers prior to their use. However, more and more consumers are now willing to compare the estimated costs with others if such information is readily available. Surprisingly, almost half of the respondents believed that they would have made a different decision had such information been available to them. Overwhelmingly, the prospective consumers want to see the cost information readily available through such media as the yellow pages and others. Most consumers believe that the providers should be allowed to advertise their fees although they are less certain of the degree of success in controlling the health care cost via advertisement. As expected, the providers opposed any idea of advertising their fees.

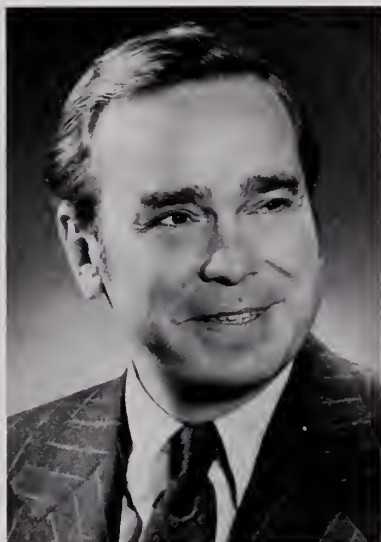
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President's Message

Missouri's new Certificate of Need (CON) law, enacted in the last state legislative session, has been implemented and, in at least the Kansas City area, it has become embroiled deeply in politics. In mid-December, the Mid-America Health Systems Agency (MAHSA) held their annual elections for the Board of Directors. There were five positions open for providers on the board and the Nominating Committee had made recommendations for these positions. Two of the positions, a health care



Andrew McCanse, M.D.

provider and a professional school representative, were contested through a petition process. The incumbent health care provider was a physician and was endorsed by the Nominating Committee. One of the challengers for that position also was a physician who became interested in running for the MAHSA board after he saw a newspaper ad by MAHSA soliciting interest in people running for the board as a way to help cut the costs of health care.

This physician responded to the ad by going to MAHSA headquarters and asking about what he needed to do to run for the board and help in this way to serve the public. He was interviewed by the Nominating Committee but was not endorsed by the committee. Since there was no other physician in private practice in Jackson County presently serving on the board, a number of his colleagues petitioned to get his name on the ballot. The Jackson County Medical Society, for the second year in a row, supported a physician who practiced in another county and who was the incumbent.

The challenger won the election by 67-42. So far, physicians and other health care providers had been involved in the process and went through the formal measures required to participate. Since the new CON law calls for the county courts or their counterparts to elect the Health Systems Agency board,

MAHSA submitted the names of the winners of this election to these county officials as a recommended slate for the board.

There had been no news coverage of any of the election process. The defeated incumbent was supported by a number of physicians and others including politicians who brought pressure on the elected county officials. The Jackson County executive, Dale Baumgardner, who is the highest elected official in Jackson County, supported the defeated incumbent. Mr. Baumgardner carries a great deal of weight with the other counties by virtue of having a county with the second largest population in the state. The vote of those who showed up from the eight counties served by MAHSA was to elect the entire slate with the exception of the winning challenger health care provider. He was defeated by these county officials by 14-3. In addition, another vote was taken to elect the defeated incumbent to his former seat, 14-3. The three negative votes were from Johnson County, Kansas commissioners, home of the winning challenger in the first election. No one told the challenger until over a week later.

Since there was no news coverage of the elections, there was no way that the challenger was to know that his seat would be in jeopardy and no way for his supporters to make their voices heard to the county officials. When I asked Mr. Baumgardner why the officials had reversed the prior election, he said that a number of physicians and politicians called to support the incumbent and that few calls, if any, were made on behalf of the challenger. He also said that there was no way to remedy the situation and to wait until the elections next year.

This entire process has a rotten smell and bears out exactly what physicians had been most concerned about with health planning — that political considerations would take precedence over an orderly planning process. Part of that orderly process was a nominating and election procedure which allowed a physician who wished to participate in health planning to do so. That election has been subverted by politicians and some physicians who felt that they can make a better judgment than a group of providers who register and vote. This is democracy at its worst.



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MSMA Auxiliary

INVITATION TO OPPORTUNITY— NEW YEAR'S RESOLUTION

We, the members of the Missouri State Medical Association Auxiliary, must continue to encourage membership in the AMPAC and MMPAC for all physicians' spouses as well as physicians. Increased membership is still our top priority for the year, and we must renew our efforts to achieve our goals.

Our most vital need and demanding goal is to increase our Auxiliary membership to correspond more closely to the membership of the MSMA. This will require the combined efforts of every Auxiliary member and, hopefully, the personal interest of the MSMA members in encouraging their spouses to join us.

Members of the Auxiliary resolve to increase their efforts on behalf of good legislation. This is an area in which the doctors' spouses can really help their busy husbands or wives. Each member should resolve to become informed about current proposed legislation and to alert members of Congress to the will of the people.

All programs of the Auxiliary will be supported by each member. This support may take various directions. It involves work in communities. The American Medical Association Education and Research Foundation (AMA-ERF) and Missouri State Medical Foundation (MSMF) are also very important programs requiring our constant efforts.

What a great year 1980 can be if all these resolutions are instituted and followed.

HAPPY 1980!



Mrs. Rudy Ruhling
President

EDITORIAL

CASE SUMMARY — 1989

by
Frederick L. Jones, Jr., M.D.*

Arnold Sartorius was a 56-year-old consumer who first came to the attention of the health care industry when he noted a lump in his abdomen. Seeking primary care, he attended his local federally funded and staffed health maintenance organization which operated out of a large Winnebago camper parked by his neighborhood fire house every Tuesday afternoon. Here he was classified by a health interventionist as one of the worried well and underwent multiphasic screening. Deeply gratified when informed that 27 tests showed that the functions of his liver, kidneys, cochleas, thyroid, lungs, ciliary body and heart were all normal, he nonetheless remained concerned about the lump in his abdomen which by now had begun to ache a bit. By pressing his demands politely but firmly — and aided by a telephone call from his congressman's office — he at length was examined by a licensed provider of health services, who found the lump in his abdomen. Although mindful of the HMO motto, "To hospitalize is to have failed," this provider nevertheless surreptitiously furnished Mr. Sartorius with a shopper's list of hospitals published by the Insurance Commissioner.

The consumer thereupon selected a health facility rated AAA on the basis of an outstanding Utilization and Peer Review Service and low room rates. Unfortunately, he found that this institution had closed. Still determined — and indeed stimulated by the now persistent pain in his

abdomen — Mr. Sartorius saw another provider of health services in a formerly large but now withering metropolitan hospital rated C by the Commissioner but having substantial, although clandestine, reputation as a medical center. Here the diagnosis of relapsing nuchinosis was established and immediate laparotomy advised. After consultation with the consumer's health insurance carrier, however, it was determined that his hospitalization would not be covered since current medical opinion indicated that a brief ambulatory course of treatment with oral Ethampicin was invariably curative. (The hospital bill to date was thereupon charged to his admitting provider.) Ethampicin, however, although widely used in Europe, Micronesia and the Congo for ten years, had not yet been approved for American consumers by the FDA.

By now profoundly uncomfortable and unable to walk without flashes of excruciating pain, Mr. Sartorius staggered from the hospital to a methadone clinic in a nearby ghetto. Here, at last, he found relief and lived a comfortable, if not happy, life until his death three weeks later.

The demise of Arnold Sartorius was duly reported to the competent health authorities who found it yet another tragic example of the well known failure of the health care industry in its current inefficient, profit-oriented, provider-dominated state. But then, one official commented privately, who can get too upset over a junkie?

* Dr. Jones is Chairman, Division of Medical Services, Geisinger Medical Center, Danville, Pa.

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Public Relations?

It seems like the subject of better public relations for the medical profession is a topic at nearly every meeting of physicians.

As a result, the MSMA, the AMA and local medical societies generate positive aspects about the profession to present to the public. These include health hints for newspapers, public service announcements for radio and television, pro-

viding health information for students, speaking at public meetings . . . the list goes on and on.

Then . . . BOOM . . . along comes "Dear Abby"!! (Incidentally, "Abby" can't be blamed because a Robert Wood Johnson Foundation survey taken last year showed that "waiting time in a doctor's office ranked second (28%) in a list of patient's complaints against doctors.)

Dear Abby

No patience for doctors who make them wait

By ABIGAIL VAN BUREN

Dear Abby: Hooray for Steamed in Stockton, who was tempted to bill his physician \$100 for the two hours he spent cooling his heels in the outer office.

Listen to this: I made an appointment for a routine physical six months in advance. When I arrived, the waiting room was packed with patients. An hour later, I was called into an examining room and was told to undress. I did. I sat there unclothed for 40 minutes until his majesty, the doctor, entered!

As soon as I was on the examining table, his telephone rang. The doctor said, "Excuse me," and proceeded to talk to another doctor about a business deal. They talked for 10 minutes, after which he phoned his secretary and asked her to call yet another doctor. I lay there seething with resentment while my doctor told the second doctor what the first doctor had told him about their tax shelter.

I was given a very fast examination, after which the doctor prescribed medication for high blood pressure. Believe me, I know what caused it!

Steamed in Long Beach

Dear Steamed: My mail reflects a great deal of sympathy for Steamed. Read on:

Dear Abby: We had a doctor in Falls Church, Va., who never overbooked appointments. We never had

to wait more than five or 10 minutes to see him. He had an excellent practice and was so conscientious that he refused to take a new patient unless he had time. (He referred them to a colleague.)

In Florida, it's another story. My husband had a 2 p.m. appointment. At 4 p.m. he was still waiting. He approached the nurse and asked, "Do I have to wait until the doctor sees all these other people?" (There were about 10 people waiting.) The nurse replied, "You CERTAINLY do." With that, my husband walked out!

Steamed in Daytona Beach

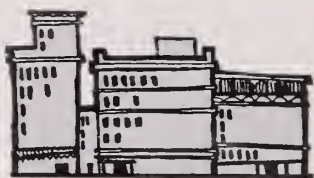
Dear Abby: I gave my doctor a taste of his own medicine a few years back. He used to keep me waiting for hours before I could get in to see him.

I was plenty annoyed, but I didn't want to change doctors because I had gone to him for years. He had all my old records and X-rays, and I thought I might as well live with the devil I knew rather than the devil I didn't know.

Anyway, when it came time to pay him, I made HIM wait for his money.

It never got me in any quicker, but I felt better about having to wait.

Got Even in Idaho



NEWS

From the Medical Schools

UNIVERSITY OF MISSOURI-COLUMBIA

Martin H. Alpert, M.D., instructor in medicine at the Medical Center, has been awarded one of the five teaching and research scholarships given annually by the American College of Physicians.

Dr. Alpert's objective is to develop a cardiology learning center and to design a new curriculum in cardiovascular diseases. He plans to blend new and innovative teaching methods with the traditional curriculum. Beginning in July, he will receive \$12,000 for the first year of his work. It will increase \$1,000 in each of the two successive years.

A graduate of Ohio State College of Medicine in 1973, Dr. Alpert took his internship and residency training in internal medicine at the University of Missouri. He was a fellow in cardiology from 1976 to 1978 and chief resident in medicine in 1978-1979. Currently, he is director of the echocardiography laboratory in the Division of Cardiology. His primary research interests are in the hemodynamic aspects of hypertension and in echocardiography.

The American College of Psychiatrists has selected *Dr. Glenna C. Burton*, resident physician (third year) in the Department of Psychiatry, to serve as one of 12 Laughlin Fellows at its annual meeting on February 6-10 in San Antonio.

In 1977, *Dr. C. Clifton Barnhart*, another UMC Department of Psychiatry resident, was chosen as a Laughlin Fellow. Only 13 other medical schools besides the University of Missouri-Columbia (UMC) have been honored by having two psychiatry residents selected as Laughlin Fellows since the inception of the program. Other schools doubly honored are Baylor, Columbia (New York), Cornell, Einstein, Hahnemann, Harvard, Jefferson, Michigan, New York University, Pittsburgh, South Carolina, Stanford and Yale.

Dr. Burton, who entered the UMC Department of Psychiatry's residency training program in July, 1977, received her M.D. degree from the University of Missouri-Kansas City. She also holds an M.S.P.H. degree and a Ph.D. degree in

microbiology from UMC. She formerly was an assistant professor of microbiology at UMC; a microbiologist at the Cancer Research Center in Columbia; and chief of microbiology and serology at the Truman Medical Center in Kansas City.

This year, Dr. Burton was co-winner, with *Dr. J. Gregory Neal*, of the award for exceptional achievement as a resident physician in psychiatry, presented annually at the Kenneth F. Struessel, M.D. Memorial Lecture.

The Ophthalmology Department has received a \$7,500 grant from Research to Prevent Blindness, Inc., to further research efforts in eye diseases. *Dr. Jules Stein*, entertainment business executive and physician, is chairman of the granting organization.

One of the new projects of the UMC ophthalmology department is free glaucoma screening offered in the Eye Clinic every Tuesday and Thursday mornings. Patients who have a borderline or elevated pressure in their eyes are told they should have a complete ophthalmologic examination. This public service is to help prevent blindness by early detection of a problem.

Nine senior medical students were inducted into Alpha Omega Alpha, honorary society of medicine, at a convocation in the Medical Center auditorium on November 27. Members are selected on the basis of leadership, scholarship and clinical proficiency.

The new members are *Phillip Apprill*, *Edward Kunst*, *Thomas Rosamond*, all of St. Louis; *Thomas Baeker*, Columbia; *Douglas Bradley*, Belton; *John Steven Hata*, Boonville; *Michael Jones*, Ewing; *Kenton Voorhees*, Ladue; and *Eugene Worth*, Branson.

Dr. David G. Hall, chairman of obstetrics/gynecology, the AOA honoree in 1978, was speaker for the convocation. He discussed aspects of proposed national health insurance, defending the private practice of medicine.

Seniors who were elected to membership in AOA at the end of their junior year in medical school are *Michelle Cates*, St. Joseph; *John Baker*, Webster Groves; *Gary Marklin* and *Tom Mitchell*, St. Louis; and *Fred McQueary*, Springfield.

ST. LOUIS UNIVERSITY

William H. Friedman, M.D., chairman, Department of Otolaryngology, received an honor award for service to the American Association of Otolaryngology at its meeting in Dallas. While there, he also instructed two courses on "Surgery of the Nasal Tip" and "Anatomic Surgery of the Head and Neck."



Dr. Friedman

Other School of Medicine faculty at the conference included *Robert E. Ryan Jr., M.D.*, assistant clinical professor of otolaryngology, who received first prize in the residents' research competition in the clinical

category for his work on "The Correlation of Preoperative Immunologic Test Results with Recurrence in Patients with Head and Neck Cancer."

Margaret Cooper, Ph.D., assistant professor of otolaryngology and anatomy, presented a paper on the cells of neurons on the tongue and *Victor Strelzow, M.D.*, assistant professor of otolaryngology, presented two exhibits on head and neck reconstructive surgery and X-ray techniques for revisional rhinoplasty.

John D. Bouhasin, M.D., associate clinical professor of pediatrics and *J. Heinrich Joist, M.D., Ph.D.*, associate professor of medicine and pathology, co-directed a recent conference on "Hemophilia and Related Disorders: Recent Developments in Diagnosis and Management."

Focusing on the warning signs of hemophilia as well as the myths associated with the disease, such as bleeding to death from a scratch, the conference included national experts on hemophilia and its diagnosis and treatment.

Dr. Bouhasin is also director of the Hemophilia Diagnostic and Treatment Center at Cardinal Glennon Memorial Hospital for Children. Dr. Joist is co-director of the division of hematology-oncology at St. Louis University Hospitals.

St. Louis University Arthritis Center and Continuing Nursing Education cooperated with area arthritis and medical centers, the Arthritis Health Professionals of the Eastern Missouri Chapter and the Arthritis Foundation to sponsor two conferences on staff and patient education and a diag-

nosis and treatment update on arthritis.

The conference stressed proper patient education that included the importance of medical treatment at the outset of symptoms as opposed to useless home remedies. In addition, health professionals were reminded of the warning signals of arthritis that often are overlooked or ignored.

The School of Medicine hosted the 37th annual meeting of the Midwest Anatomist Association. Approximately 100 neurologists and neuro-anatomists from the Midwest and Canada attended the meeting.

Paul A. Young, Ph.D., chairman of the anatomy department, was president of the association during the past year. Associate professors of anatomy, *Leo C. Massopust Jr., Ph.D.*, and *John J. Taylor, Ph.D.*, were co-chairman of the program.

The scientific program included sessions on immunohistochemistry, cytology, microcirculation, endocrinology, reproduction and neurology, and was highlighted by a symposium on supraspinal motor systems and spinal cord injury.

Burton Pogell, Ph.D., professor of microbiology, received a \$54,911 grant to study chick embryo livers in the hope that knowledge gained from his research will help in understanding liver abnormalities in the human embryo.

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Effective February 1, 1980

The project, titled "Control of Differentiation of Chick Embryo Liver," is directed toward gaining a better understanding of cell differentiation and molecular mechanisms in the embryonic development of the liver. The chick embryo is used as the animal model for the human embryo since most of its reactions are relatable to humans.

The grant is part of five-year, \$298,461 grant awarded last year by the National Institute of Child Health and Human Development to Dr. Pogell.

UNIVERSITY OF MISSOURI-KANSAS CITY

The Board of Curators of the University of Missouri formally approved the creation of a Bachelor of Science in Nursing Program at the University of Missouri-Kansas City (UMKC). The dean of the new school will be *Dr. Lucille Ryan*, presently at the Medical College of Georgia, who will join the University in the spring of 1980. The School will be housed in the Health Sciences Building at 2220 Holmes.

Dean Jonas has announced the following three new appointments:

Dr. Jack Mulligan, senior docent and professor of medicine, will be coordinator for Cost Containment Effectiveness Programs, Education and Research; *Dr. Violet Matovich*, chief of the Section on Neurology at Truman Medical Center and professor of medicine, will be coordinator of neurosciences education; and *Dr. Dennis Szymanski*, chief of the Section on Neurosurgery and assistant professor of surgery, will be assistant coordinator of neuroscience education.

On November 28, *Dr. Issac Kaplan*, professor of surgery, Tel-Aviv, Israel and inventor of the medical laser, concluded a five-day seminar in laser surgery co-sponsored by Truman Medical

Center and the School of Medicine. Other visitors for this course included *Dr. E. M. French*, otolaryngologist and member of the Louisiana State University faculty, and *Dr. J. Bellina*, member of the Department of Obstetrics and Gynecology, Tulane Medical School as well as the faculty from the Cleveland Clinic, Emory University, University of Tennessee and the University of Florida.

Dr. Ray Snider, chairman of the Department of Surgery, announced that the Victor Spease Foundation donated \$52,000 for the purchase of a carbon dioxide laser and that the Truman Medical Center Auxiliary donated \$37,000 to purchase an operating microscope to be used in conjunction with the laser.

The surgery faculty is planning a sequence of two-day instructional courses in the use of the medical laser beginning late this month.

Prof. Wu Ying-K'ai, director of the National Heart Hospital of Beijing (Peking) China, visited the School of Medicine to make a special presentation of a historic letter and photograph of *Mr. Edgar Snow* to the Edgar Snow Memorial Collection at the University of Missouri-Kansas City. Dr. Wu Ying-K'ai received the student and faculty delegation when they visited Peking in 1976. Dr. Wu Ying-K'ai also gave a special University Hour lecture on thoracic surgery in China.

Dr. Cheh-Chieh Chen of the Sichuan Medical College, Chengdu, Sichuan, China was hosted for a two-day visit on December 13-14 to study the educational philosophy of the UMKC School of Medicine. Dr. Chen is visiting 13 medical schools in the United States and Canada under the joint sponsorship of the Ministries of Education and Health, the Scientific and Technical Commission, People's Republic of China and the Rockefeller Foundation.



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MSMA Members Receive Physician's Recognition Award

Forty-three MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period of Nov. 1-28, 1979.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in *MISSOURI MEDICINE* as they are received from the AMA.

Charles H. Appleberry, Flat River
 Peter A. Boyer, Jefferson City
 Charles J. Brook, Kansas City
 Lynn N. Carlton, Springfield
 Howard W. Carrington, Lebanon
 I-Hsiung Chen, Ste. Genevieve
 Michael S. Clarke, Springfield
 Milton L. Cobb, St. Louis
 Amos L. Coffee, Willow Springs
 Nicholas J. Colosi, Chesterfield
 Russell B. Dieterich, St. Charles
 Larry L. Doss, Columbia
 John J. Duggan, St. Louis
 William L. Fair, Chillicothe
 Sammy L. Farrell, Washington
 Michael S. Fedotin, Kansas City
 Robert M. Feit, St. Louis
 Filippo J. Ferrigni, University City
 David A. Fleming, Columbia
 Theodore J. Glenn, Cape Girardeau
 Alan S. Gubin, Caruthersville
 Ijaz A. Jatala, St. Louis
 Warford B. Johnson, Springfield

Walter T. Judge, Crystal City
 Andrew B. Kaufman, Kansas City
 Robert M. Keller, Wentzville
 Carolyn M. Kline, St. Joseph
 Harry L. S. Knopf, Clayton
 Norton S. Kronemer, St. Louis
 Vijaya K. Mangunta, Cape
 Girardeau
 David L. McMillan, Neosho
 William R. Morgan, Kansas City
 Manuel I. Navarro, Columbia
 Grover S. Patterson, Carthage
 Arturo G. Quiason, Kansas City
 Richard T. Quick, St. Louis
 William R. Richardson, Union
 Daniel E. Sullivan, Fort Leonard
 Wood
 Robert H. Tanner, Jefferson City
 Robert W. Tichenor, St. Louis
 Edith S. Trugly, St. Louis
 Arthur T. Tuma, Poplar Bluff
 Robert L. Wheeler, Harrisonville

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

- Jan. 20-25 Mid-Winter Traveling Medical Education Course. Kansas City Southwest Clinical Society
(Steamboat Springs, Colo.)
- Feb. 2-9 Medical Seminar at Sea. Kansas City Southwest Clinical Society
(Caribbean Cruise leaving Miami)
- Feb. 8-9 The Long Weekend: Update in Electrocardiography, Radiology and Use of the Laboratory
(Crown Center Hotel)
- Feb. 23-
Mar. 1 Late-Winter Traveling Medical Education Course. Kansas City Southwest Clinical Society
(Maui, Hawaii)
- Mar. 27-29 Perspectives in Medicine
(Crown Center Hotel)
- Apr. 10-12 Update in Obstetrics and Gynecology
(Crown Center Hotel)
- May 2-3 The Long Weekend: Office Clinical Care
(UMKC School of Medicine)
- May 15-16 Surgical Problems, Old and New
(Alameda Plaza Hotel)
- June 5-6 Symposium on Physical Fitness
(Crown Center Hotel)

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 454-3372
Contact: Doris McCall, Assistant Director

- Jan. 26 WUMC Alumni Winter Meeting
(Ixtapa, Mexico)
- Jan 27-
Feb. 1 Ob-GYN Conference
(Keystone, Colo.)
- Feb. 28-29 MKSAP V
- March-May Internal Medicine Board Review
(Jewish Hospital of St. Louis)
- Mar. 20-21 Rheumatology Conference
- Mar. 27-28 Current Concepts in Cerebrovascular Surgery
- Apr. 10-11 Seventh Annual OB-GYN Symposium

- Apr. 25-26 Eye Alumni Meeting
- May 3-11 Second Annual Current Concepts in Musculoskeletal Radiology and Orthopedics Meeting
- May 9-10 Orthopedic Radiology
- May 15-16 Neuromuscular Diseases

University of Missouri School of Medicine
Office of Continuing Education
M-233 Medical Center, Columbia 65212
(314) 882-2256
Contact: William D. Bradshaw, M.D.

- Feb. 17-21 Cancer Management of the Clinician of the 80s
(Tamarron, Durango, Colo.)
- Feb. 28-29 Nutritional Update
- Mar. 4 Preceptor's Day
- Mar. 5-6 Family Practice Update
- Mar. 12-13 Medicine and Religion
- Mar. 20-21 Spring Surgery Conference
- Mar. 31-
Apr. 1 26th Annual Urology Seminar
(Crown Center, Kansas City)
- Apr. 9-10 Primary Pediatrics for the Primary Physician
- Apr. 18-20 Group Relations
- May 9-11 Third Annual Missouri Cardiovascular Conference
(Tan-Tar-A, Osage Beach)
- June 2-3 Sixth International Symposium on Intestinal Microecology
- Aug. 10-11 Third Annual Workshop in Soft Tissue Surgery

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
Contact: Ronald G. Evens, M.D., Director

City-Wide Radiology Conference

- Feb. 11 Pediatric Radiology
- Mar. 10 CT of the Thorax-Updated
- May 12 Parenchymal Liver Disease — Evaluation With Computed Tomography

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000

Every Wed. & Fri. 3:00 PM — Basic Sciences to Surgery Seminar
4:00 PM — Surgical Rounds

Contact: Erich W. Pollak, M.D., Director of Surgical Education

First & Third Saturdays 9:00 AM — Surgical Techniques Seminar
9:45 AM — Morbidity and Mortality Conference
10:30 AM — Surgical Grand Rounds

Every Tues. 9:00 AM Medicine Staff Conference
(Except second Tuesday of each month)

Contact: David S. Sneed, M.D., Director of Medical Education

Missouri Baptist Eye Foundation
621 S. New Ballas Rd., Suite 343
St. Louis 63141

May 5-7 Eye Seminars — Contact Lenses and Intraocular Implants

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

Feb. 6 Carcinoma of the Breast: Update 1980
Apr. 2 Present Status of Antibiotic Therapy
June 4 Chronic Obstructive Pulmonary Disease
Aug. 6 Rheumatic Heart Disease

Greater Kansas City Radiological Society
Contact: Raymond W. Hartwig, M.D., Dept. of Radiology, Trinity Lutheran Hospital, Kansas City

Feb. 13 Nuclear Medicine
(Dinner Meeting, Alameda Plaza Hotel)
4 PM Lecture
(University of Kansas Medical Center)

Mar. 12 Abdominal C. T.
(Dinner Meeting, Alameda Plaza Hotel)
4 PM Lecture
(St. Luke's Hospital)

Apr. 23 Bone Roentgenology
(Dinner Meeting, Alameda Plaza Hotel)
4 PM Lecture
(University of Kansas Medical Center)

ANNOUNCING: MSMA Auxiliary's Second Annual

AMA-ERF/MSMF BENEFIT AUCTION

During the 122nd Annual Session

Thursday, April 17

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New Members

Ahmed S. Abdel-Sufam, M.D., Rt. #1, Bolivar 65613, has become a member of Dallas-Hickory-Polk-Dade County Medical Society. Dr. Sufam is a native of Egypt, received his preliminary education at Cairo University and his M.D. degree at Cairo University in 1962. He specializes in general surgery.

Charles R. Adams, M.D., 4512 Rainbow, Kansas City, Kan. 66103, has become a member of Jackson County Medical Society. Dr. Adams is a native of Wichita Falls, Tex., received his preliminary education at Wichita State University and his M.D. degree at Kansas University in 1979. He specializes in internal medicine.

Gerald L. Arthur, M.D., Box 998, Columbia 65201, has become a member of Boone County Medical Society. Dr. Arthur is a native of Detroit, Mich., received his preliminary education at Carleton College and his M.D. degree at the University of Chicago in 1969. He specializes in pathology.

Robert Balk, M.D., 8100 E. 80th, Kansas City 64138, has become a member of Jackson County Medical Society. Dr. Balk is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1978. He specializes in internal medicine.

George Bone, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Bone is a native of South Africa, received his preliminary education at the University of Minnesota and his M.D. degree at St. Louis University in 1976. He specializes in internal medicine.

Ulysses S. Bowler, M.D., 6235 E. 127th, Grandview 64030, has become a member of Jackson County Medical Society. Dr. Bowler is a native of Boley, Okla., received his preliminary education at Oklahoma State University and his M.D. degree at the University of Kansas in 1978. He specializes in internal medicine.

Scott S. Brown, M.D., 12908 W. 66th Terr., Shawnee Mission, Kan. 66216, has become a member of Jackson County Medical Society. Dr. Brown is a native of Topeka, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1978. He specializes in internal medicine.

Phillip Michael Burch, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Burch is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. degree at St. Louis University in 1979. He specializes in pathology.

James Zong-Wu Chen, M.D., 6420 Clayton Rd., Richmond Heights 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Chen is a native of Taiwan, received his preliminary education at National Taiwan University and his M.D. degree at National Taiwan University in 1968. He specializes in therapeutic radiology.

Donald L. Cohen, D.O., 7061 Granada Rd., Shawnee Mission, Kan. 66208, has become a member of Jackson County Medical Society. Dr. Cohen is a native of Kansas City, received his preliminary education at Washington University and his D.O. degree at the Kansas City College of Osteopathic Medicine in 1978. He specializes in internal medicine.

W. Edwin Conner, M.D., 304 Medical Plaza, 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Conner is a native of West Chester, Pa., received his preliminary education at Juniata College and his M.D. degree at the University of Maryland in 1973. He specializes in colon and rectal surgery.

Jon D. Cooksey, M.D., 950 Francis Pl., Clayton 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. Cooksey is a native of Ashland, Ky., received his preliminary education at the University of Kentucky and his M.D. degree at Tulane University in 1962. He specializes in cardiology.

Frederick G. DeFeo, M.D., 8821 Widmer Rd., Shawnee Mission, Kan. 66215, has become a member of Jackson County Medical Society. Dr. DeFeo is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1978. He specializes in internal medicine.

John L. Denton, M.D., 401 Keene, Columbia 65201, has become a member of Boone County Medical Society. Dr. Denton is a native of

Springfield, received his preliminary education at Drury College and his M.D. degree at the University of Missouri in 1975. He specializes in obstetrics and gynecology.

Mark Herbert DeWolfe, M.D., 29 E. 53rd, Kansas City 64112, has become a member of Jackson County Medical Society. Dr. DeWolfe is a native of Northfield, Minn., received his preliminary education at the University of Minnesota and his M.D. degree at the University of Minnesota in 1977. He specializes in internal medicine.

Charles John DiCecco, M.D., 11133 Dunn Rd., St. Louis 63136, has become a member of St. Louis Metropolitan Medical Society. Dr. DiCecco is a native of Rochester, N. Y., received his preliminary education at Holy Cross College and his M.D. degree at St. Louis University in 1971. He specializes in internal medicine and emergency medicine.

Angus S. Dunn, M.D., Dept. of Radiology, Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Dunn is a native of Glasgow, Scotland, received his preliminary education at the University of Manchester and his M.D. degree at Anderson College of Medicine in 1946. He specializes in radiology.

Joseph Michael Duvall, M.D., 2821 N. Ballas Rd., Town & Country 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Duvall is a native of Ste. Genevieve, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1974. He specializes in dermatology.

Curtis W. Dyer, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Dyer is a native of Independence, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1978. He specializes in family practice.

Devera M. Elcock, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Elcock is a native of Sioux Falls, S. D., received his preliminary education at Augustana College and his M.D. degree at the University of Nebraska in 1974. He specializes in family practice.

Donald G. Elder, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Elder is a native of Perryville, received his preliminary education at Southern Illinois University and his M.D. degree at the University of Illinois in 1978. He specializes in family practice.

Robert L. Elkins, M.D., 703 Highlands Professional Tower, 6724 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Elkins is a native of Oklahoma City, Okla., received his preliminary education at the University of Kansas and his M.D. degree at Kansas University in 1973. He specializes in urology.

Daniel Patrick Emerson, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Emerson is a native of Clarksville, Ark., received his preliminary education at Southeast Missouri State University and his M.D. degree at the University of Missouri in 1976. He specializes in emergency medicine.

Barry Lee Engelstad, M.D., Mallinckrodt Institute of Radiology, 510 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Engelstad is a native of Chicago, Ill., received his preliminary education at Massachusetts Institute of Technology and his M.D. degree at the University of California in 1977. He specializes in radiology.

Carol A. Evans, M.D., 1044 W. 41st Pl., Apt. 2, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Evans is a native of Germany, received her preliminary education at the University of Missouri and her M.D. degree at the University of Missouri in 1978. She specializes in internal medicine.

James R. Eynon, M.D., 401 Highland Professional Tower, 6724 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Eynon is a native of East Liverpool, Ohio, received his preliminary education at Carnegie-Mellon University and his M.D. degree at the University of Pittsburgh in 1973. He specializes in cardiology.

Mokhtar H. Gado, M.D., 510 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Gado is a native of Egypt, received his preliminary education at Cairo University and his M.D. degree at Cairo University in 1953. He specializes in nuclear medicine and radiology.

Barry James Gainor, M.D., Dept. of Surgery, University of Missouri, Columbia 65212, has become a member of Boone County Medical Society. Dr. Gainor is a native of Albany, N. Y., received his preliminary education at Holy Cross College and his M.D. degree at Albany Medical School in 1972. He specializes in orthopedic surgery.

David M. Harshman, M.D., Suite 319, 3535 S. Jefferson, St. Louis 63118, has become a member of St. Louis Metropolitan Medical Society. Dr. Harshman is a native of Pittsfield, Ill., received his preliminary education at Northern Illinois University and his M.D. degree at the University of Illinois in 1975. He specializes in cardiology.

Thomas Henry Hetrick, M.D., 624 LaPetite Ct., Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Hetrick is a native of Atlanta, Ga., received his preliminary education at Mississippi State University and his M.D. degree at the University of Mississippi in 1974. He specializes in family practice.

Michael K. Johnson, M.D., 2827 Lawton Promenade, St. Louis 63103, has become a member of St. Louis Metropolitan Medical Society. Dr. Johnson is a native of Springfield, Ohio, received his preliminary education at Ohio State University and his M.D. degree at St. Louis University in 1975. He specializes in obstetrics and gynecology.

John E. Kasukonis, D.O., P. O. Box 236, R.R. #1, Lutesville 63762, has become a member of Cape Girardeau County Medical Society. Dr. Kasukonis is a native of St. Louis, received his preliminary education at Washington University and his D.O. degree at Texas College of Osteopathic Medicine in 1976. He specializes in general practice.

Harriet S. Langley, M.D., 5900 State Line Rd., Shawnee Mission, Kan. 66208, has become a member of Jackson County Medical Society. Dr. Langley is a native of Kansas City, received her preliminary education at the University of Missouri and her M.D. degree at the University of Missouri in 1978. She specializes in internal medicine.

John S. Lemley, M.D., 1035 Bellevue, St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Lemley is a native of Laramie, Wyo., received his prelimi-

nary education at the University of Wyoming and his M.D. degree at the University of Colorado in 1975. He specializes in oncology.

Steven M. LeVine, M.D., 827 Westwood Dr., Apt. 2E, Clayton 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. LeVine is a native of Chicago, Ill., received his preliminary education at Emory University and his M.D. degree at the Johns Hopkins University in 1978. He specializes in general surgery.

Jose Araujo Lima, M.D., Dept. of Otolaryngology, St. Louis University Hospitals, 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Lima is a native of Brazil, received his preliminary education at Santo Ignacio College and his M.D. degree at Faculdade de Medicina da Universidade Federal do Rio de Janeiro in 1971. He specializes in otorhinolaryngology.

John M. Moore, M.D., 3636 Gillham Rd., Apt. 14, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Moore is a native of Springfield, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1979. He specializes in internal medicine.

Janet E. Mules, M.D., 1505 W. 56th, Independence 64050, has become a member of Jackson County Medical Society. Dr. Mules is a native of Baltimore, Md., received her preliminary education at Bryn Mawr College and her M.D. degree at the University of Maryland in 1963. She specializes in psychiatry.

Don Murrmann, M.D., 111 W. 67th, Kansas City 64113, has become a member of Jackson County Medical Society. Dr. Murrmann is a native of South Bend, Ind., received his preliminary education at Indiana University and his M.D. degree at Indiana University in 1978. He specializes in internal medicine.

Romeo J. Perez, M.D., 3015 N. Ballas Rd., St. Louis 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Perez is a native of Manila, Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1966. He specializes in obstetrics and gynecology.

Nath C. Okafor, M.D., 1515 Lafayette, St. Louis 63104, has become a member of St. Louis

Metropolitan Medical Society. Dr. Okafor is a native of Nigeria, received his preliminary education at Government College and his M.D. degree at the University of Lagos in 1972. He specializes in obstetrics and gynecology.

Edward A. Puro, M.D., 6254 Waterman, St. Louis 63130, has become a member of St. Louis Metropolitan Medical Society. Dr. Puro is a native of Ontario, Canada, received his preliminary education at the University of Toronto and his M.D. degree at Washington University in 1975. He specializes in internal medicine.

Charles H. Rehm, Jr., M.D., 621 S. New Ballas Rd., Suite 611, St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Rehm is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. degree at St. Louis University in 1975. He specializes in internal medicine.

George R. Reisz, M.D., 210 E. 33rd, Apt. 1W, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Reisz is a native of Henderson, Ky., received his preliminary education at Vanderbilt University and his M.D. degree at Indiana University in 1977. He specializes in internal medicine.

Ruth S. Rios, M.D., 451 S. Albany, Bolivar 65613, has become a member of Dallas-Hickory-Polk-Dade County Medical Society. Dr. Rios is a native of Buenos Aires, Argentina, received her preliminary education at National College Bahia Blanca and her M.D. degree at the University of Buenos Aires in 1957. She specializes in family practice and anesthesiology.

Vijay K. Sadhu, M.D., 1502 E. Broadway, Columbia 65201, has become a member of Boone County Medical Society. Dr. Sadhu is a native of India, received his preliminary education at Inter College Kanpur and his M.D. degree at All-India Institute of Medical Sciences in 1973. He specializes in radiology.

James Dennis Saffa, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Saffa is a native of Clayton, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri in 1975. He specializes in internal medicine.

Pravin Sampat, M.D., 1710 Concord Ct., Apt. 304, Kansas City 64110 has become a member of

Jackson County Medical Society. Dr. Sampat is a native of India, received his preliminary education at Bombay University and his M.D. degree at Lokmanya T. M. M. College in 1976. He specializes in internal medicine.

Larry J. Strausbaugh, M.D., 807 Stadium Rd., Columbia 65212, has become a member of Boone County Medical Society. Dr. Strausbaugh is a native of Wooster, Ohio, received his preliminary education at the University of Maryland and his M.D. degree at Baylor College of Medicine in 1971. He specializes in internal medicine and infectious diseases.

Victor V. Strelzow, M.D., Dept. of Otolaryngology, St. Louis University Hospital, 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Strelzow is a native of Hallendorf, Germany, received his preliminary education at the University of Toronto and his M.D. degree at the University of Toronto in 1973. He specializes in otolaryngology.

R. Mark Styczynski, M.D., 10316 E. 42nd, Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Styczynski is a native of Rock Island, Ill., received his preliminary education at Loyola University of Chicago and his M.D. degree at the University of Illinois in 1977. He specializes in internal medicine.

Norvin E. Thomas, D.O., 1834 N.E. Vivion Rd., Kansas City 64118, has become a member of Jackson County Medical Society. Dr. Thomas is a native of Marshall, received his preliminary education at the University of Missouri and his D.O. degree at Kansas City College of Osteopathic Medicine in 1978. He specializes in internal medicine.

James P. Walterbach, M.D., Apt. 203, 217 N.W. 63rd, Kansas City 64118, has become a member of Jackson County Medical Society. Dr. Walterbach is a native of Kansas City, received his preliminary education at Rockhurst College and his M.D. degree at St. Louis University in 1977. He specializes in internal medicine.

Mary M. Weinstein, M.D., Dept. of Child Health, University of Missouri Medical Center, Columbia 65212, has become a member of Boone County Medical Society. Dr. Weinstein is a native of St. Louis, received her preliminary education at Duke University and her M.D. degree at

the University of Chicago in 1972. She specializes in pediatrics and neonatology.

Stephen H. Weinstein, M.D., Dept. of Surgery, University of Missouri Medical Center, Columbia 65212, has become a member of Boone County Medical Society. Dr. Weinstein is a native of Brooklyn, N. Y., received his preliminary education at the University of New York, and his M. D. degree at the University of Chicago in 1972.

He specializes in urology.

Assefa Woldesemait, M.D., Bldg. 1, Apt. 20, 1100 County Line Rd., Kansas City, Kan. 66103, has become a member of Jackson County Medical Society. Dr. Woldesemait is a native of Ethiopia, received his preliminary education at American University in Beirut and his M.D. degree at the University of St. Andrews in Scotland in 1960. He specializes in internal medicine.

In Memoriam

Edwin J. Froelich, M.D., Rt. 7, Lebanon 65536; a graduate of the National University of Arts and Sciences Medical Department, 1912; member of St. Louis Metropolitan Medical Society; age 93; died Oct. 13, 1979.

Clarence H. Kilker, M.D., 7231 Winchester Dr., Normandy 63121; a graduate of St. Louis University, 1919; member of St. Louis Metropolitan Medical Society; age 87; died Nov. 3, 1979.

Rollin H. Smith, M.D., 620 W. Main, West Plains 65775; a graduate of Jefferson Medical

College of Thomas Jefferson University, 1931; member of South Central Counties Medical Society; age 76; died Nov. 15, 1979.

Don R. Meriwether, M.D., 902 Edmond, St. Joseph 64502; a graduate of the University of Kansas, 1951; member of Buchanan County Medical Society; age 61; died Nov. 17, 1979.

Martin H. Lutz, M.D., 31 Aylesbury Dr., St. Louis 63131; a graduate of Cornell University, 1931; member of St. Louis Metropolitan Medical Society; age 77; died Nov. 18, 1979.

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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

(Ye ed thanks the librarians of the Medical Library at the University of Missouri-Kansas City School of Medicine for making available the journals used in preparing these columns.)

The Boone County Medical Society held its annual dinner meeting and election of officers at the Stephens College Country Club on December 5, 1939, as guests of Dr. James Wood, president of Stephens College. After an enjoyable dinner, the meeting was called to order by the president, Dr. E. D. Baskett. The following officers were elected for 1940: president, Dr. Frank Dexheimer; vice-president, Dr. Karl Dietrich; and secretary-treasurer, Dr. Maurice E. Cooper (reelected).

The Cape Girardeau County Medical Society met at the Colonial Tavern at 8 PM on December 11, 1939. Dr. J. H. Cochran presided. The following officers were elected for 1940: president, Dr. C. T. Herbert; vice-president, Dr. F. W. Hall; secretary, Dr. C. A. W. Zimmermann; and treasurer, Dr. M. H. Shelby, all of Cape Girardeau.

Dr. Louis H. Hempelmann, St. Louis, was honored at a dinner celebrating the 50th anniversary of the Deaconess Hospital in St. Louis on November 28, 1939. He was the oldest staff member in years of service and was presented a watch during the ceremony.

House Bill 189 was passed by the last legislature. The law, which relates to the State Board of Barber Examiners, was amended to require physical examinations of all barbers to show them to be healthy.

TWENTY-FIVE YEARS AGO

Dr. Frederick Chapman Robbins, currently professor of pediatrics at Western Reserve University School of Medicine in Cleveland, Ohio, was one of three physicians to win the 1954 Nobel Prize in Medicine. Dr. Robbins received his B.A. degree from the University of Missouri in 1936 and his B.S. in medicine in 1938. He received his M.D. degree at Harvard University in 1940. He is

the first alumnus of the University of Missouri School of Medicine to become a Nobel Laureate.

In a "Letter to the Editor" in the June 19, 1954 issue of JAMA, Leo H. Pollock, M.D. of Kansas City calls attention to unpleasant intestinal reactions caused by the use of monosodium glutamate in some people. The editor of that journal observed that this was the first mention of this reaction in the world's literature.

Eugene Robichaux, M.D., Excelsior Springs, was elected secretary by the Clay County Health Department in November. — The Knight Templar 40-Year-Award was presented to T. W. Cotton, M.D. of Van Buren for his civic and Masonic accomplishments at a district meeting in Mountain Grove.

Among recipients of the William Jewell College Citation for Achievement on November 11 at Liberty was Dr. W. Wallace Greene, Kansas City.

Robert H. Friedman, M.D. and J. Neal Midelkamp, M.D., St. Louis, were among 182 physicians elected to the American Academy of Pediatrics recently.

TEN YEARS AGO

John T. Crowe, M.D., Cape Girardeau, was installed as president of the Missouri Academy of General Practice at its 21st Annual Scientific Assembly at the Lodge of the Four Seasons, Lake Ozark on Oct. 24-26, 1969. He succeeds Dr. Barney W. Finkel, St. Louis, retiring president, who has been an active member of the organization since 1949. Other officers installed at the Saturday Banquet by Edward J. Kowalewski, M.D., president of the American Academy of General Practice, are Drs. R. Glenn Elliott, Kansas City, president-elect and John P. Mabry, Plattsburg, vice-president. Dr. Lois C. Wyatt of Kirkwood remains as secretary-treasurer.

Gov. Warren E. Hearnes has named Dr. William W. Monafo, Jr., of Kirkwood to the State Board of Registration for the Healing Arts. He replaces Dr. William E. Powers, St. Louis, whose term has expired.

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days



- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
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Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

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The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of

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Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

Missouri Medicine

Vol. 77, No. 2

(ISSN 0026-6620)

February, 1980

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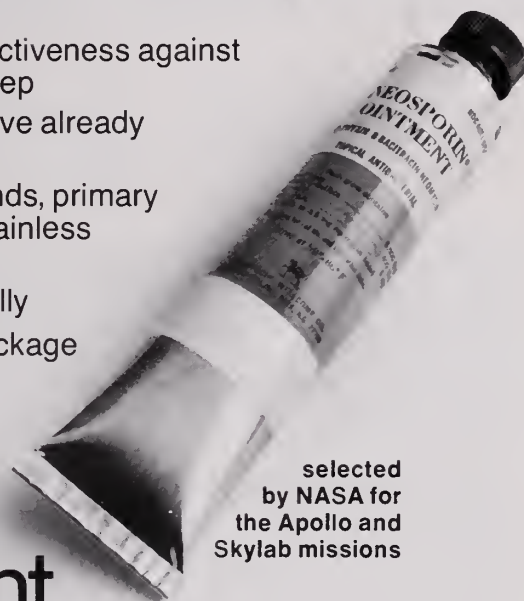
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When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

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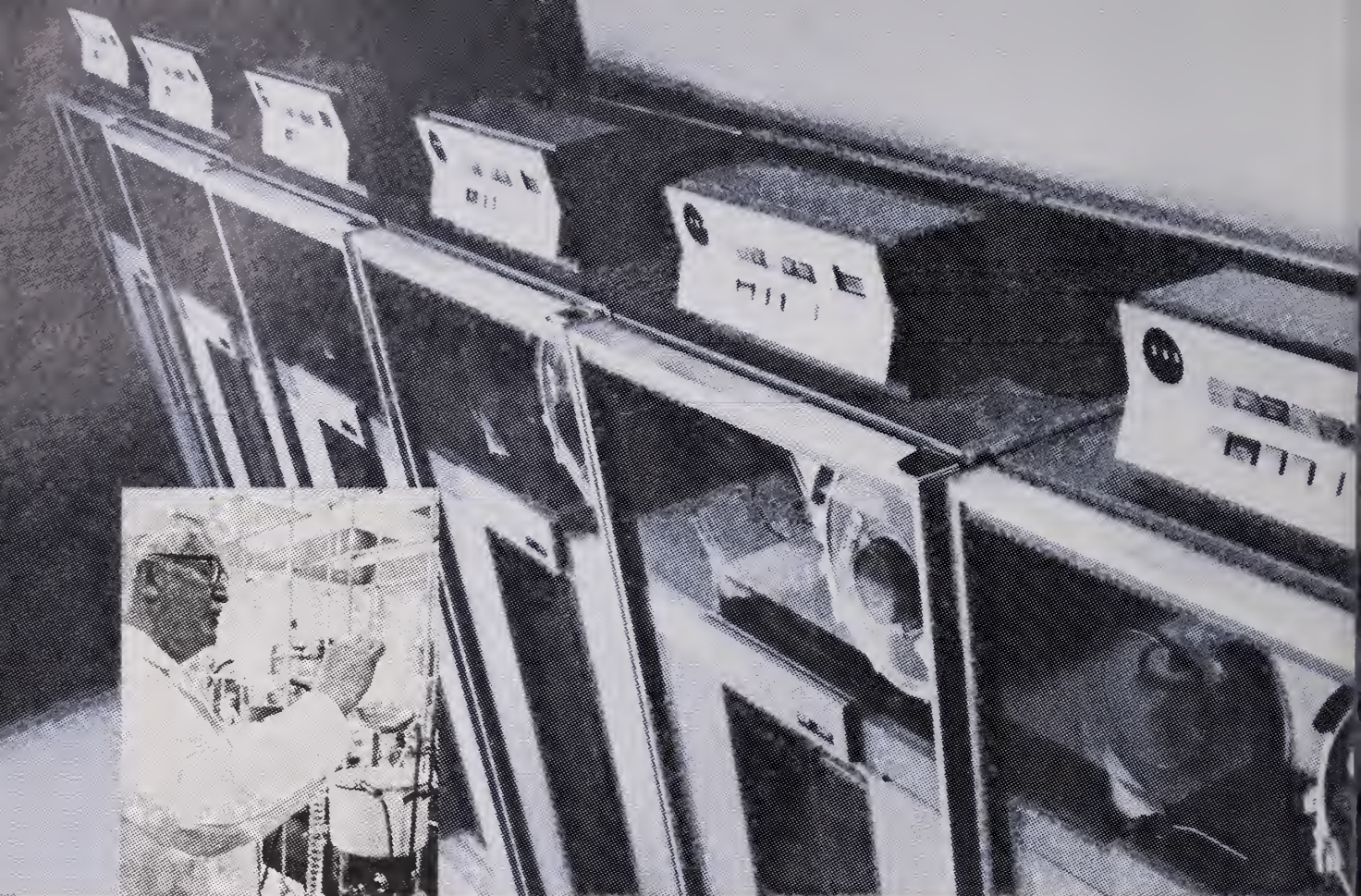
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ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



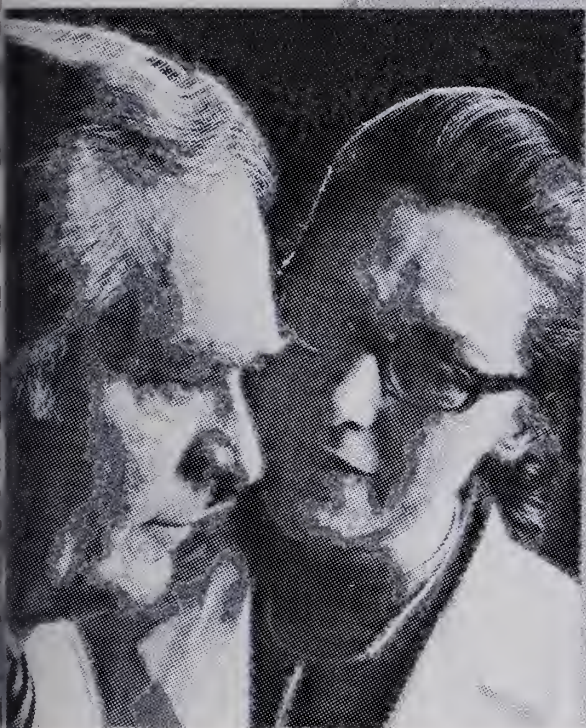
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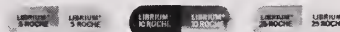




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Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage. Withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive/aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression. Suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults* Mild and moderate anxiety and tension, 5 or 10 mg *t i d* or *q i d*; severe states, 20 or 25 mg *t i d* or *q i d*. *Geriatric patients* 5 mg *b i d* to *q i d* (See Precautions.)



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Product Information as of September, 1977
U.S. Patent 2,985,558

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The Alpha Advantage:

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- Catapres can be useful even in these patients with:

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Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
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work/play—normal hemodynamic responses to exercise maintained.

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blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

¹ Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

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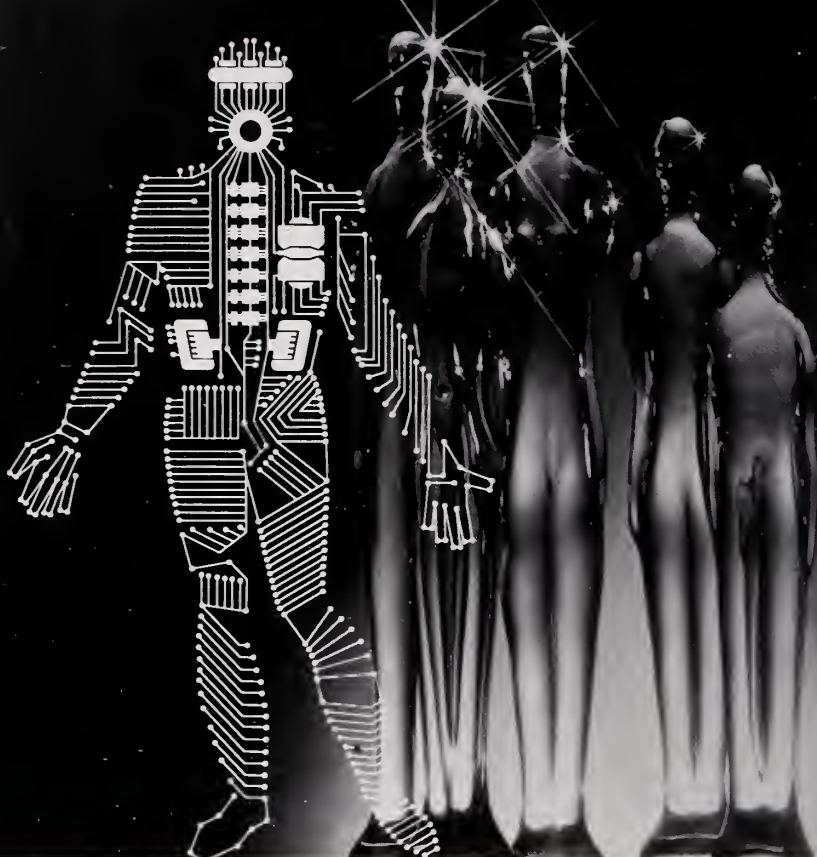
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Catapres
(clonidine HCl)
Hypertension





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(clonidine HCl)
Hypertension



- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an anti-hypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.

Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.

Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

spontaneously occurring retinal degeneration in albino rats treated for 6 months longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness and sedation. Constipation, dizziness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug, some of them rarely. (In some instances an exact causal relationship has not been established.) These include: Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormalities in liver function tests, one report of possible drug-induced hepatitis without icterus and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chik thalidone and papaverine hydrochloride. Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase; congestive heart failure, Raynaud phenomenon; vivid dreams or nightmares, insomnia, other behavioral changes: nervousness, restlessness, anxiety and mental depression. Also rash, a glioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness, itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecomastia, weakly positive Coombs' test, asymptomatic electrocardiographic abnormalities manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished or absent reflexes and vomiting followed the accidental ingestion of Catapres (clonidine hydrochloride) by several children from 19 months to 5 years of age. Gastric lavage and administration of an analeptic and vasopressor led to complete recovery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-minute intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) overdosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

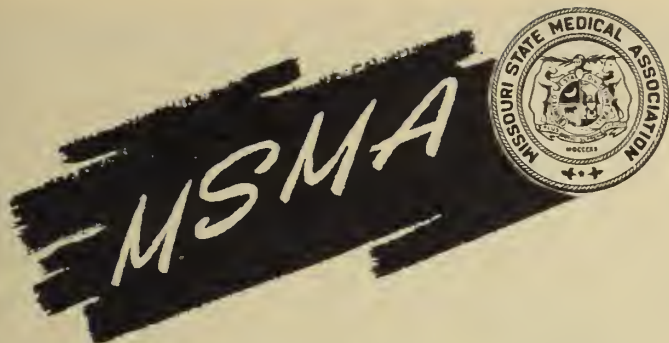
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NEWS ROUND - UP

February, 1980

General Assembly off to fast start

According to Legislators, lobbyists and knowledgeable observers, the 1980 Missouri General Assembly is off to its fastest start in recent memory. The MSMA currently is following over 150 bills.

Following is a brief rundown on the action taken on bills to date:

HB 1455 (Optometrists — Use of Topically Applied Drugs) was heavily lobbied by both sides. "Key Contacts" including family physicians, orthopaedic surgeons, general surgeons and Auxiliary members contacted Representatives. The Committee voted 6-6 with three abstaining to hold the bill. Later attempts to change the vote may be made. Medicine was the only opposition. A few ophthalmologists supported the bill.

SB 741, the Senate version of optometry bill was heard by the Senate State Health Care Committee. Two years ago, this same Committee voted Do Pass by a 5-1 margin. Hopefully, the bill will be far down on the Calendar.

HCS 1095 & 1548 (Laetrile) was reported Do Pass by 11-1 vote and *will* reach the House Floor. MSMA presented the only opposition. Several "cured" patients testified, plus some physicians and friendly Legislators.

HB 1383 (Occupational Techs) and **HB 1758** (Athletic Trainers) both call for licensure and both have been reported Do Pass.

HB 1581 (Medicaid — Rural Health), which would allow payment to Nurse Practitioners, licensed as registered nurses, in Rural Health Clinics, has been reported Do Pass. Other factors such as the recent Attorney General opinion may enter into the picture.

SB 532, calling for elimination of pre-marital blood testing, has been Perfected by the Senate. MSMA had the bill introduced.

SB 546 (Separate Department of Health) has been Perfected. The MSMA House of Delegates called for endorsement.

SB 615, which updates and revises Board of Healing Arts statutes and allows the Board to set its own fees, is being held in Committee along with all other Senate bills dealing with licensure boards. These bills are awaiting the fate of **SB 888**, which revises and standardizes the language of *all* licensure boards.

SB 575, which would establish a Review Commission to consider all requests for licensure and, following an investigation, present its recommendations to the General Assembly, did *not* receive favorable Committee action.

SB 577 (Corneal Tissue Removal) has been reported Do Pass. The sponsor has called on the MSMA Auxiliary for assistance in passage.

SB 551 (Definition of Death) received a tough Committee assignment and has not been reported out to

date.

HB 1559, which requires auto restraints for youths under age 4, has been reported Do Pass.

HB 1638 (Physician's Assistants) has been reported Do Pass. MSMA is on record as not favoring additional licensure at this time.

HB 1178, which states that a physician must furnish a patient copies of the patient's records, has been reported Do Pass. The bill is still being studied to insure that psychiatric records and perhaps some other records are exempted. A physician would be reimbursed for the cost of copying.

HB 1724 (Omnibus Mental Health Bill) is being "marked up" by the Committee with input from MSMA and Missouri Psychiatric Association.

Dr. Deckert to open Annual Session with topic 'Physician, Heal Thyself'

Preparations are underway for the 122nd Annual Session of the Missouri State Medical Association, April 17-20, 1980, at the Crown Center Hotel in Kansas City.

At this year's Annual Session, 28 scientific sessions are planned for the continuing medical education program. Eighteen medical specialties and two voluntary health organizations will sponsor these CME sessions.

The scientific program is approved for Category I CME credit by the MSMA and is also acceptable for prescribed and elective hours by the American Academy of Family Physicians.

Again this year, a cardiopulmonary resuscitation (CPR) training session is planned. And for the first time, the MSMA Committee on the Impaired Physician will hold an Impaired Physician Program for all interested MSMA members, auxiliary members and guests.

At the Opening General Session on Friday, April 18, the featured speaker will be Gordon H. Deckert, M.D.

Dr. Deckert, professor and head of the Department of Psychiatry and Behavioral Sciences, University of Oklahoma Health Sciences Center, will address the topic of "Physician, Heal Thyself."

At the University, Dr. Deckert personally teaches "Phenomenology of Human Behavior" and "Psychopathology and Psychodynamics" to students in the College of Medicine and the College of Dentistry. He conducts an annual seminar, "The Tasks of a Health Professional" for family medicine and psychiatric residents, residents from other primary care specialties, psychiatric social workers and psychology interns.

Dr. Deckert has also conducted numerous seminars and workshops for various professional groups across the U.S.

Dr. Leonard Furlow honored

Leonard T. Furlow, M.D., a past president of the MSMA and the St. Louis Medical Society, was honored January 5 when the University of Florida College of Medicine dedicated the Division of Neurosurgery residents' library to him.

Dr. Furlow, who provided valuable assistance in the development of the neurosurgery program at the University of Florida, received his medical degree from Emory University. He completed a residency in neurological surgery at Washington University and went on to join the faculty, becoming a full professor of clinical neurological surgery in 1966.

Dr. Furlow has also served as president of the St. Louis Surgical Society, Missouri State Medical Foundation, American Association of Neurological Surgeons, American Board of Neurological Surgery and Society of Neurological Surgeons.

Information on Medicaid Early Periodic Screening Diagnosis and Treatment Program

Missouri Medicaid implemented the Early Periodic Screening Diagnosis and Treatment Program in October 1979. At that time E.D.S. Federal mailed to all physicians the new MS-40 revised forms, the EPSDT Provider Manuals, and the EPSDT updates to Section 3 of the Physician Provider Manual.

However, additional information must be considered when filing claims for EPSDT screenings.

First, all Medicaid recipients, whose current Medicaid card has an asterisk preceding their names, are eligible for the EPSDT Program's screening procedures. After the screening has been done, the physician must mark out the asterisk on the card. Therefore, the Medicaid ID card with the asterisk marked out indicates that the recipient has had a screening according to the periodicity schedule and a second screening is noncovered.

Second, beginning February 4, 1980, a claim for an EPSDT screening will be denied if an old MS-40 form is submitted instead of the newly revised MS-40 form.

Third, if a claim for an EPSDT screening is denied for any reason, a copy of the revised MS-40 form must be attached when resubmitting the claim. Follow this procedure regardless of how many times a claim is resubmitted.

Fourth, the following Immunization Injection codes should be removed from the list of injectable codes on page 19-6 of the Physician Manual: 90720, 90721, 90722, and 90723. These codes will no longer be covered under the Missouri Medicaid Program. Please refer to the January Missouri Medicaid Bulletin for the correct codes to use when billing all immunizations.

For further assistance, please contact the E.D.S. Federal Communications Unit.

A M A seeks nominations for annual medical awards

The American Medical Association is requesting state medical associations, national specialty societies and county medical societies to consider the submission of nominees for three important awards to be presented at the 1980 AMA Annual Meeting.

These awards give national recognition to outstanding physicians for their contributions to research, medical practice, and medical education. The deadline for receipt of nominations is March 1, 1980.

Please contact Mr. Neil Sutherland, Special Assistant to the Executive Vice President, at the AMA headquarters office, if you require any additional information.

DOCTOR RODMAN E. SHEEN AND THOMAS G. SHEEN AWARD

The Award consists of a \$15,000 cash prize and a commemorative plaque, presented annually to an American physician or physicians in recognition of outstanding contributions in medicine. The Award is made possible by a bequest in the will of the late Thomas G. Sheen, a businessman in Atlantic City, New Jersey, and is administered by the Guarantee Bank and Trust Company of Atlantic City, trustees of the estate of Thomas G. Sheen.

The Award is bestowed each year at the Annual Meeting of the AMA House of Delegates and the recipient must be present to accept the Award. Candidates must be United States citizens and must possess an M.D. degree. The Award can recognize either a single achievement or an accumulated career of excellence.

DOCTOR WILLIAM BEAUMONT AWARD IN MEDICINE

The Doctor William Beaumont Award in Medicine provides a \$2,500 stipend and a plaque. It was established as an encouragement to younger physicians. Eligible for the Award are physicians 50 years of age or under, who are U.S. citizens and have distinguished themselves in medical science. The AMA Board of Trustees selects the recipient from among nominees submitted by its Awards Committee.

JOSEPH B. GOLDBERGER AWARD IN CLINICAL NUTRITION

The Award, consisting of a commemorative plaque and \$1,000, was established in 1949 by the Board of Trustees to serve as a stimulus to medical investigators in advancing the frontiers of public and personal health, and to honor physicians who have made important contributions to the knowledge of nutrition.

The Award, which is presented by the Board of Trustees, was named in honor of the late Doctor Joseph B. Goldberger, who was chiefly responsible for the discovery of the cause and treatment of pellagra. It has been bestowed almost every year since 1949, with the exception of the years 1950, 1955, and 1956. Candidates must be members of the Association.

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References should be arranged at the end of the article in the order in which the references are cited in the text. The reference should give name of author, title of article, name of periodical, volume number, initial page number and year. Authors are responsible for reference accuracy.

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A man at work at his trade is the equal of the most learned doctor.

Hebrew Proverb

A skillful trade is better than an inherited fortune.

Welsh Proverb

Mencken quotations 1210

Editor's Corner

A hundred years from now, the American experiment in mass college education will be looked back on as a spectacular and somewhat naive failure.

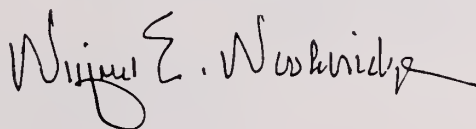
Colleges became cluttered with a great percentage of their student bodies who wasted much time and vast amounts of family assets. Society then had to put up with individuals who were exposed to liberal educations without ever being educated, even in the most liberal sense. They assumed positions which permitted them to inflict great harm, such as becoming frustrated English teachers who couldn't begin to diagram a sentence and physical education instructors who would have made splendid piano movers. So-called education ruined them for the jobs they could have done well.

The greatest, and most immediate, evidence of this failure was that the mentalities of those people were not capable of absorbing the niceties of culture, much less imparting them to anyone else. The music they espoused was precisely what they would have listened to had the school bell never rung. What they read after graduation was exactly the same as they could have understood and read equally well in the eighth grade. Their concept of pleasurable pursuit was very much like that of a monkey which had caught another monkey by the tail.

Somewhere along the way, in that educational mish-mash, practicality was forgotten. A rosy, foolish dream proposed that schooling could somehow confer intelligence. It was entirely forgotten that intelligence is bequeathed and can only be nurtured, not created.

In no country other than the United States of America could this experiment have gone on so long. It ended for two reasons; first, because it never worked and, second, because such profligate squandering of national resources could no longer be afforded. The young people were the first to realize the fallacy of the whole business. Sometime afterward, their parents grudgingly conceded.

From "Conversations With Myself,"
Wilfred E. Wooldridge



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MSMA President McCanse Addresses House of Delegates at Fourth Interim Session

The following is a transcript of the address delivered by Andrew McCanse, M.D., president, at the MSMA Fourth Interim Session in Columbia. Transactions of the Interim Session are reported on page 89.

This Interim Session of the House of Delegates was first held three or four years ago primarily for the purpose of drafting legislation to be introduced to the upcoming session of the Missouri legislature and to take a stand on other legislation which was expected to be presented. In the last legislative session, we supported a number of bills which became law, including the Good Samaritan Statute, a hearing procedure for providers of Medicaid services who had claims reduced or denied, the Certificate of Need legislation, the Family Practice Residency Bill, the Omnibus Nursing Home Act, a 7% fee increase for physicians under Medicaid and a bill redefining physician advertising as distinguished from solicitation.

We also helped to get several bills defeated, including the expansion of chiropractic and the licensure of different paramedical groups.

We supported bills that failed to pass, including the Collateral Source Bill for Professional Liability.

This year, the General Assembly will be dealing with bills for Optometry Drug law, a separate Department of Health and the length of stay for involuntary psychiatric evaluation.

Three of the matters which seem important and which will be considered by our state medical association executive council as well as the House of Delegates in the coming year are further licensure, registration or certification by the state of various paramedical groups, medical student membership in the House of Delegates of Missouri State Medical Association, as well as on the executive council, and the need to increase membership in the American Medical Association.

We all realize that a number of different paramedical groups, which include the registered nurses, chiropractors, podiatrists, optometrists

and now physician assistants, are attempting to increase their voice in the health care field through their lobbying efforts with the state legislatures. Our state association must face these issues and deal with them realistically recognizing that there is a need for many of the services provided by these paramedical people and that those services must be subject to careful supervision in order to assure that a quality service is rendered in the care of our patients. All of these groups, however, wish to become free standing and to persuade the legislature to increase the legal scope of their activities. We must be firm and, at the same time, we must consider the need for changes where changes are appropriate.

In regard to student membership in the House of Delegates and on the Executive Council, I must say that this is one of the more heated issues which I have heard discussed in medical societies around the state. We must arrive at the most reasonable decision on this matter.

In regard to the American Medical Association, it is imperative that we use every acceptable method of persuasion to convince the 25% or so of our membership who are not AMA members that they are not carrying their part of the load. The AMA is designed ultimately for the benefit of our patients and, as such, is the only organization which speaks for physicians who seek to upgrade the nation's health. The expenses of the AMA are expected to outdistance the income in another year or two. In addition to encouraging student membership in organized medicine, we all need to work on our fellow physicians who are not AMA members to join the fold.

I wish all of the members of the House of Delegates and their families the very best in their upcoming deliberations and I look forward to a highly successful interim session.

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(102175)

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WILLIAM B. MILL, M.D., GLENN P. GLASGOW, Ph.D.
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Hemi-Body Irradiation in the Palliation of Disseminated Malignancies

WHOLE BODY¹⁻⁷ as well as large field⁸ radiation therapy has been used for palliation in advanced malignant disease for many years. Recently, Fitzpatrick and Rider *et al*^{6, 9, 10} reported their results with hemi-body single fraction radiation. They reported pain relief from metastatic bone disease (often in 24 hours) in 90% of patients treated (297/318).

The biologic effect of single fraction radiation treatment is greater than the same dose given in multiple fractions.¹¹ This is thought to be due to the absence of repair of sublethal damage which occurs with fractionation. Six hundred rad in a single treatment should reduce the surviving fraction of oxygenated clonogenic cells to approximately 0.05. This is based on an average D_0 (the dose required to reduce the surviving fraction to 0.37) of 180 to 200 rad for solid mammalian tumor cells. The median doubling time of human tumors is on the order of 66 days (range of four to 745 days).¹²

In a simplistic way, a 95% reduction in viable cells would require five doubling times or approximately 330 days for the tumor to regrow. The lethal dose (LD) 50/60 in man for total body irradiation (TBI) is approximately 300 rad.¹³ The cause of death in humans dying after 300 to 700 rad doses of TBI is usually failure of the bone marrow stem cells to repopulate. Hemibody irradiation (HBI) allows repopulation from that marrow which is outside the radiation port.

The advantages (benefits) of single fraction radiation therapy include less expense in both time and money as compared with standard fractionation schemes for radiation therapy which may extend for several weeks. The effect would not be expected to last as long as with routine fractionation. In these patients with very advanced disease, however, the expected survival time is usually not long, and the palliative effects may last until death occurs from other causes.

This is a report of a pilot protocol utilizing hemi-body irradiation in a single fraction in patients with disseminated malignancies and multiple myeloma. Twenty-one patients received 26 courses of hemi-body irradiation. The primary response criterion was pain relief. Of the 26 treatments given, there was no response in three, partial response in 21 and complete response in two for a response rate of 88%. The authors conclude that hemi-body irradiation is an effective modality for the palliation of pain in selected patients.

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The purpose of this article is to report our experience with HBI with particular emphasis on the response rate, dosimetry of the treatment and toxicity.

MATERIALS AND METHODS

Between November, 1977 and March, 1979, 21 patients received 26 courses of HBI for palliation of symptoms. Seventeen of these were treated for carcinomas and four for multiple myeloma (Table 1). Patients were eligible for this study if they had a proven primary malignancy with multiple metastases and were not candidates for other therapy with proven effectiveness. Eligibility criteria included adequate bone marrow, renal, pulmonary and hepatic function, and no chemotherapy within four weeks of HBI. Patients with compromised pulmonary function with an

arterial $PO_2 < 60$ mm Hg and those with a history of myocardial ischemia were ineligible for the upper hemi-body treatment.

RADIATION THERAPY TECHNIQUE AND DOSIMETRY

The radiation therapy consisted of a single fraction using anterior- and posterior-opposed 80 cm by 80 cm portals with a 25 MV photon beam at approximately 220 cm SAD at a dose rate of 80 rad per minute. If the patient was unable to lie prone, all the treatment was given from the anterior side. The radiation portals extended from the top of the iliac crest to above the vertex of the skull for the upper half-body and from the top of the iliac crest to the ankles for the lower half-body (Fig. 1). In most instances, the portal size available with our set-up did not allow the inclusion of the feet. In no instance did the exclusion of the feet result in a symptomatic problem in that area later in the course of the disease.

The dose of radiation was 600 rad mid-plane tissue dose for disseminated metastatic carcinoma and 300 rad for multiple myeloma. The lower dose for patients with multiple myeloma was based on our belief they would have less bone marrow reserve. This dose was calculated at the mid-plane of the pelvis in the case of lower hemi-body treatment and at the central axis, which was usually near the sternal notch for the upper half-body. Areas of prior radiation were blocked as necessary to limit the dose to tolerance levels for sensitive structures. The lung dose was estimated by applying a correction factor as described by Rubin *et al.*¹⁴ This resulted in an additional dose of approximately 10% to all lung tissue due to the decreased density of the lung. The prescribed dose was calculated by using tissue maximum ratios following the general calculational procedures for large field irradiation described by Johns and Cunningham.¹⁵

RESULTS

Patients were evaluated as to their subjective degree of pain at frequent intervals after the

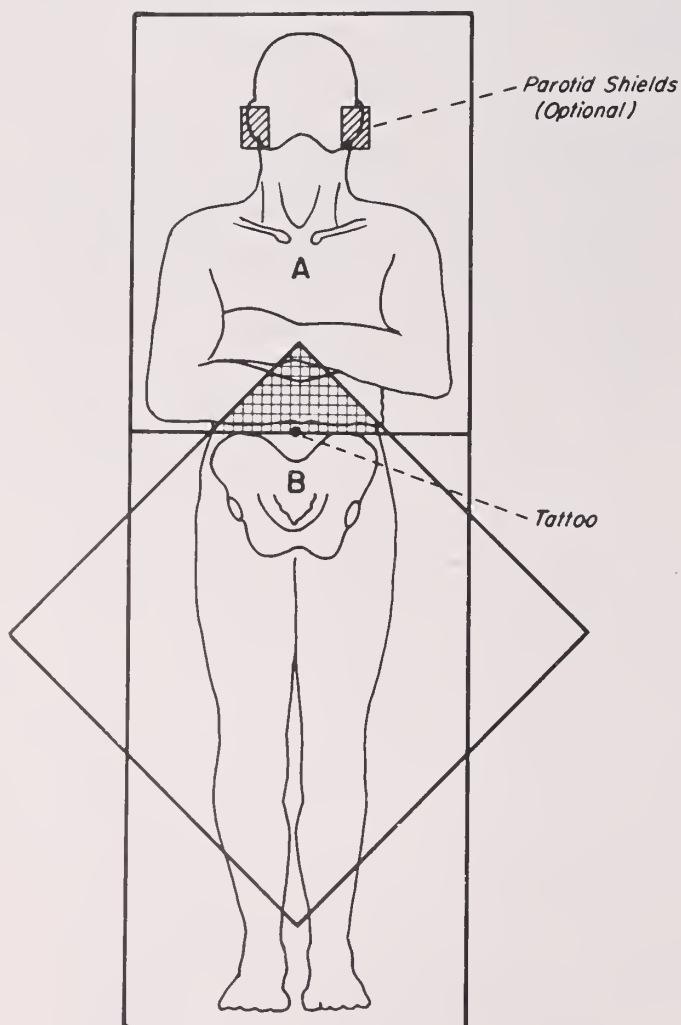


Fig. 1 Radiation portals. Lower half-body is usually treated with the diamond-shaped field in order to include as much of the lower extremities as the obtainable field size will allow.

TABLE 1
PRIMARY TUMORS

Breast	6
Lung	5
Prostate	3
Adenoid cystic	2
Base of tongue	1
Multiple myeloma	4

treatment. Twenty-one treatments were given to the 17 patients with disseminated metastatic carcinoma; nine were upper half-body treatments and 12 were lower half-body. Three patients received both treatments and one patient received the lower hemi-body treatment twice with a six-month interval. Two treatments produced a complete response defined as complete relief of pain; 17 had a good response with a significant decrease in the degree of pain, which allowed an improved performance status; and two produced no response (minimal or no pain relief). The pain relief achieved was frequently evident within 48 hours. In 13 cases, the patients reported some relief within 24 hours and in an additional six cases within 48 hours.

As the study progressed, we realized the difficulty in quantitating the duration of pain relief. In the two patients obtaining a complete response, it was relatively easy: one developed recurrent pain in the irradiated half-body at 44 weeks; the other is still free of pain at the time of this report, which is 12 weeks after treatment. In those patients who obtained only partial pain relief, there were two distinct problems in evaluating the pain status: (1) the pain in the irradiated half-body needed to be differentiated from pain originating in the other half of the body and (2) the degree of pain had to be carefully quantitated to define when the partial pain relief had terminated.

We have elected to define the duration of pain relief as the time from treatment until the use of analgesics increases in frequency or the "strength" of the analgesic is increased, e.g., from Tylenol® to codeine. Using these criteria, we were able to evaluate the duration of pain relief in only eight patients treated for disseminated metastases. The median duration in those patients was 11 weeks. Nine of the 17 patients were dead at the time of the review with a median survival of 66 days.

Four patients received five treatments with 300 rad for multiple myeloma; one patient received sequential treatment with a six-week interval to both upper and lower halves. Four treatments resulted in partial pain relief. Three of these were within 24 hours and one had no response.

TOXICITY

Nausea and vomiting were the most frequent symptoms after HBI. In those patients treated for disseminated disease, there were four patients with nausea and vomiting after upper half-body (UHB) treatments — two mild, one moderately

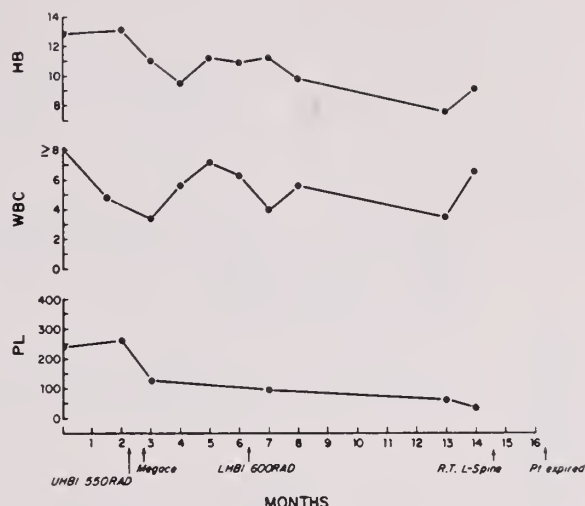


Fig. 2 Peripheral blood counts after upper and lower hemi-body irradiation in a patient with metastatic carcinoma of the breast.

severe and one severe. The patient with severe symptoms had previously received 5,000 rad to the pelvis in five weeks for palliation of carcinoma of the prostate. Three patients had nausea and vomiting after lower half-body (LHB) treatment, all of which were mild. One patient with multiple myeloma had mild nausea and vomiting after 300 rad UHB irradiation.

Bone marrow toxicity was mild with no patient developing life-threatening cytopenia within two months of the treatment. Fig. 2 graphs the peripheral blood counts after sequential upper and lower HBI in a patient with disseminated metastatic carcinoma of the breast. The terminal thrombocytopenia was ascribed to the combined effects of the tumor, radiation therapy and chemotherapy. One patient with extensive pulmonary metastases prior to treatment developed shortness of breath after 600 rad UHB irradiation.

DISCUSSION

The usual palliative radiation treatment for disseminated malignancy has been small field treatment to a minimal dose just adequate to relieve the symptoms, hopefully for the duration of the patient's survival. These courses of treatment have required varying periods of time from days to weeks, depending on the area to be treated, the dose prescribed and the radiotherapist's past experience with similar problems.

Many of these patients are critically ill and, therefore, require hospitalization for the duration of the treatment. Not uncommonly, retreatment

TABLE 2
BONE MARROW TOLERANCE FOR CHEMOTHERAPY AFTER LOWER HEMIBODY
IRRADIATION FOR METASTATIC CARCINOMA

Date	Event	Hb (gm%)	WBC ($\times 100$)	Platelets ($\times 1,000$)
1963	64WF, Left radical mastectomy			
3-78	Metastases: C,T+L spine, ribs, pelvis, skull Radiation therapy: Left hip 3,500 rad, sacrum 3,500 rad DES — no improvement Megace — no improvement			
4-28-78		11.9	6.4	234
5-31-78		12.5	11.8	
7-10-78	Pain right hip, poorly controlled with Percodan; 600 rad LHBI	13.1	5.2	355
7-20-78		12.1	4.5	
9-14-78		11.4	8.0	310
10-17-78		10.4	4.9	
11-14-78		11.4	5.8	
12-12-78	CTX 600 mg, ADR 60 mg, 5-FU 600 mg	13.1	7.4	
1-11-79		12.4	5.9	301
2-9-79		11.4	3.8	
3-13-79		12.0	3.7	

Abbreviations: DES = diethylstilbestrol
LHBI = lower hemibody irradiation
CTX = Cytosan

ADR = Adriamycin
5-FU = 5-fluorouracil

TABLE 3
BONE MARROW TOLERANCE FOR CHEMOTHERAPY AFTER LOWER HEMIBODY
IRRADIATION IN MULTIPLE MYELOMA

Date	Event	Hb (gm%)	WBC ($\times 100$)	Platelets ($\times 1,000$)
3-26-78	48WF presented with low back pain. Bone marrow — 60% P.C.	8.7	4.3	
4-11-78	Melphalan + prednisone			
5-9-78	Progression of myeloma; Melphalan + prednisone	9.1	5.2	245
6-12-78	Progression of myeloma; Severe rib pain; UHBI 300 rad	11.1	12.0	290
7-3-79		7.5	4.2	105
7-20-78	Progression of myeloma; Severe pain in pelvis; LHBI 300 rad	7.5	4.1	150
7-23-78	Transfusion	13.3	7.7	
7-27-78	Melphalan + prednisone	13.0	7.2	
8-7-78		12.6	5.8	188
8-22-78		10.6	5.3	125
8-29-78	Melphalan + prednisone	10.6	7.2	157

is necessary to the same volume or to an adjacent volume resulting in the risk of overdosage at the junctional margin. Single fraction radiation obviously offers potential benefits for these patients.

The Toronto experience is the largest and strongly supports the more widespread application of this technique. In their recent update,⁹ they reported pain relief in 93% of patients receiving HBI with doses of 300 to 1,000 rad. Unfortunately, they found that interstitial pneumonitis was the limiting toxicity.¹⁶ They reported an incidence of pneumonitis of 52% (12 of 23 patients) with a dose of 1,000 rad, 19% (28/149) with a dose of 800 rad, 12.5% (3/24) with 600 rad and 2% (1/49) with less than 600 rad. These doses are not corrected for the decreased density of lung tissue.

Supportive care is essential for all patients receiving HBI, but this is particularly true of those receiving the upper-half treatment. Salazar *et al* have reported the results of a pilot study in which 40 patients received 800 rad HBI at a dose rate of 30 to 40 rad per minute with a 10 MV linear accelerator.¹⁷ They describe an "acute radiation syndrome" consisting of nausea, vomiting, elevated temperature and pulse rate and a decrease in blood pressure which occurred in approximately 80% of patients receiving UHB irradiation. These symptoms were minimized by pretreatment medication with antiemetics, hydration and steroids. We are now advocating a similar preparative regimen prior to UHB irradiation.

(Continued on page 72)

Cerumen in the Lumen

A Rhyme

The author composed some new (and medical) stanzas to an old song and here presents the stanzas plus a brief sketch about the origins of the composition. Dr. Johnstone is Chief of Medicine, St. Joseph Hospital.

That body of songs that medical students like to sing seldom finds its way into print, but is passed along, often modified and improved, by the folk process. "Cerumen in the Lumen" is here offered as a starting-point for said process.

"Cerumen in the Lumen" is a rhyme begun over three decades ago when the author was a medical student. It contains sense, nonsense, and whimsy, and thus (it is hoped) qualifies for its intended use. Here is how it got started:

An entertainer of my parents' and grandparents' generations was Sir Harry Lauder. I was acquainted with some of his songs. One of them began like this:

A-roamin in the gloamin
on the bonnie banks o' Clyde,
A-roamin in the gloamin
wi' me lassie by me side . . .

When I was a student, I learned the word *lumen* and, not long thereafter, the word *cerumen*. They associated in my mind to the tune of "A-roamin in the Gloamin," but nothing further happened until recently when my muse somehow completed her work.

As for the Scotch flavor, it is the case of a son over the water striving to partake, not very dextrously, of an ancestral mentality which he loves and finds cogent. He hopes, thereby, to enhance, not diminish — even for American readers — appreciation of the subject. A thoroughly Scots text might be better, but it would be unintelligible on this side of the water.

A glossary is appended for the few words that the reader of *MISSOURI MEDICINE* may be uncertain about.

(Tune: A-roamin' in the Gloamin')

Cerumen in the lumen
means there's wax inside the ear.
Cerumen in the lumen
a body needna fear,
tho' soap an stuff may pile it up,
til a body canna hear,
thro' excess o' cerumen in the lumen.

Now cerumen in the lumen
doth protect the ear's inside;
O' cerumen in the lumen
a body scarce ha' died;
We irrigate, inspect, an then
gunk's topic'ly applied
to whar'd stuck fast cerumen to the lumen.

Cerumen in the lumen
scarce gars a sauvage frown.
In his eagle plume an sporran,
yon sauvage steers aroun'
our technologue complexities,
lest Welfare ear 'im down,
inspectin for cerumen in his lumen.

But cerumen in the lumen
can summon up a queue
o' city folks wha want theirs check'd
by the likes o' me an you.
Especially if it's 'free,' doc,
ye know that's what they'll do,
inquirin for cerumen in their lumen.

So, docky, just assumin
we're enfeebl'd wi' our years,
it's thanks we'll gie then, docky boy,
for the giftie o' the ears;
For we'll yet earn a buck or two,
review-ew-in our peers,
an removin cerumen from the lumen.

Mair I think o't, I see loomin
an empire to be won,
a-groomin ilka human
man an woman neath the sun
to stan' there takin doucely
the health care we'll bring on,
as we probe ilka lumen in the human.

An if groomin winna do, man,
 our empire yet ye'll see;
 From eagle plume to new man
 we'll march genetic'ly,
 wi' bio-engineerin,
 bió-politic'ly.
 a-clonin drones o' humans, **extra lumen.**

Glossary:

a body: a person
needna: need not
canna: cannot
scarce ha': scarcely has
whar: where
scarce gars a savage frown: scarcely causes a
 savage to frown
sporran: (Gael.) The pouch or purse which hangs

from a Highlander's belt, in front of his kilt,
 made of animal skin with the fur left on.
ear down: Not Scots, but a country expression
 (U.S.). You ear down an unruly animal so you
 can bridle him, saddle him, etc. I recall women
 of my grandmother's generation earing down us
 boys when they wanted to make sure we'd
 come along on something they wanted us to do.

wi': with
gie: give
mair I think o't: the more I think of it
ilka: every
doucely: gently
winna: will not
extra lumen: (Lat.) outside the lumen

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Hemi-Body Irradiation

(Continued from page 70)

One of the questions raised with regard to the toxicity of this treatment was whether the patients would be able to receive additional chemotherapy after HBI. The courses of treatment in two patients are presented in Tables 2 and 3 as examples of this situation. Table 2 records the details of treatment of a woman with disseminated carcinoma of the breast who received 600 rad LHB irradiation and Table 3 records those of a patient with multiple myeloma who received 300 rad LHB irradiation.

In summary, hemi-body irradiation is an effective modality for the palliation of pain in more than 80% of patients with disseminated metastatic malignancy. Toxicity is minimal with 600 rad. LHB irradiation may be tolerable at doses up to 800 rad. All patients scheduled for UHB irradiation should be hospitalized and premedicated with antiemetics, steroids and hydration. Pulmonary toxicity is the limiting organ toxicity, but is infrequent with doses of 600 rad (uncorrected for increased lung transmission).

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Hypokalemic Periodic Paralysis in a Thyrotoxic White Man

Case Report

IT IS IMPORTANT to recognize thyrotoxic periodic paralysis because the paralytic attacks are readily controlled by rendering the patient euthyroid. This disorder is rare in white persons.

CASE REPORT

A 24-year-old white man was admitted to University Hospital on May 30, 1977 complaining of recurrent severe muscle weakness. The first such episode occurred four years earlier when he noticed the sudden onset of weakness while running. He subsequently was unable to move his legs for one hour but, thereafter, noted no difficulty. Again in October, 1976, he experienced weakness in his legs, which was most prominent in proximal muscle groups and, also, in proximal muscle groups of his upper extremities. The episodes then occurred on a monthly basis until April, 1977 when attacks increased to several times per week. The attacks occurred several hours after going to sleep when he would awaken and feel "paralyzed." There was no associated respiratory or facial weakness. Symptoms were maximal for approximately one hour and usually abated by morning. In May, the attacks also were occurring during the day. They were provoked by high carbohydrate meals and by rest after prolonged exercise. There was no family history of similar weakness or of other neuromuscular disorders.

Three and one-half years earlier, the patient noted the onset of heat intolerance and anxiety. His symptoms worsened in October, 1976 when his speech became more rapid and he developed tremulousness, palpitations and warm skin. Despite an increase in his appetite, he lost 10 lbs in body weight. He was having formed bowel movements five times per day. He noted neck enlargement but attributed it to exercise. Family history revealed an aunt with thyroid disease of an unknown type.

On physical examination, his blood pressure was 160/80 mm Hg; pulse rate, 120; temperature, 98.4 F; and weight, 175 lbs. He had rapid speech, warm skin and lid lag, but there was neither exophthalmos nor pretibial myxedema. The thyroid gland was diffusely enlarged to twice normal size with a systolic bruit present. Muscle weakness was not present on admission. Three days later, however, he experienced lower

extremity weakness. At that time, his quadriceps strength was graded 1 to 2/5; hamstring strength was graded 3 to 4/5; and distal arm and leg strength was normal. Results of a sensory examination and deep tendon reflexes were considered normal during the attack except for diminished patellar reflexes. During this episode of weakness, his serum potassium level was 3.5 mEq/liter. Five hours later, it was 3.7 mEq/liter. The electrocardiogram (EKG) was normal except for sinus tachycardia. Serum calcium value and aldolase were normal during the episode of weakness. Subsequent to the episode of weakness, results of electromyography were normal.

On the day after admission, the serum T_4 (total thyroxine) was 30.8 $\mu\text{g}\%$ (normal, 5-13.7 $\mu\text{g}\%$). A technetium 99m thyroid scan indicated a diffusely enlarged thyroid gland with an area of decreased uptake in the left upper pole. On June 3, he received a regimen of 150 mg of propylthiouracil by mouth every six hours; 20 mg of propranolol by mouth every six hours; and 30 mg of phenobarbital by mouth three times daily. His diagnosis at the time of discharge was thyrotoxicosis. Periodic paralysis was considered unlikely because the patient was white and because he was normokalemic during this hospitalization.

After discharge, the patient was seen in follow-up on June 17 and again on July 5, at which times he felt better and had experienced no recurrence of weakness. Thyroid function tests on July 5 showed the patient to be euthyroid with a T_4 of 13.0 $\mu\text{g}\%$. RT3U was 33.0% (normal 25-35%). Propylthiouracil was discontinued on July 7 and 5.1 mCi of ^{131}I was administered on July 14. At that time, propranolol and phenobarbital were discontinued. On July 19, he appeared clinically thyrotoxic, but he denied weakness. At this time, propranolol was restarted.

The patient noted two brief episodes of weakness on July 21 and July 23. On the evening of July 24, however, he experienced his worst episode of weakness after eating a large evening meal that included three pieces of cake. At midnight, he awoke from sleep with weakness. By 2 AM he was unable to walk and could barely elevate his arms. Upon arriving at University Hospital two hours later, his blood pressure was 130/70 mm Hg, his pulse rate was 88 and his temperature was 99.6 F. He was anxious, and he had rapid speech,

This is a case report of a thyrotoxic white man with hypokalemic periodic paralysis. Of 500 cases reported in the literature, more than 90% of the patients have been Orientals. Myasthenia gravis and thyrotoxic myopathy are among the diagnostic possibilities to be considered in patients with episodic weakness or paralysis. The authors discuss typical features of hypokalemic periodic paralysis, familial and thyrotoxic varieties, pathophysiologic mechanisms and therapy. They also provide a review of the literature.

Drs. Hopf and Schneider are from the Department of Internal Medicine, St. Louis University School of Medicine.

warm skin, lid lag and a distal tremor. The thyroid gland was estimated to be three times normal size with a systolic bruit present. Lower extremity proximal muscle strength was 1 to 2/5; upper extremity proximal muscle strength was graded 2 to 3/5; distal arm and leg strength was graded 3 to 4/5. The patient's reflexes were normal.

At the time of this examination, the serum potassium level was 2.3 mEq/liter. A simultaneous EKG showed ST segment depression and T wave inversion, and prominent U waves. Within three hours, he had regained considerable strength; proximal muscles were then graded 3 to 4/5 and distal muscles were graded 4 to 5/5. At this time, serum potassium level was 3.5 mEq/liter 15 minutes after oral administration of 40 mEq of potassium chloride. Results of a simultaneous EKG were now normal. Thyroid function tests drawn on admission revealed a T_4 of 20.2 $\mu\text{g}\%$ and a RT3U of 40.1%.

The diagnosis of thyrotoxic periodic paralysis was now apparent. By July 26, his muscle strength was normal and the serum potassium level was 4.5 mEq. He was discharged on July 27 on a therapeutic regimen of 150 mg of propylthiouracil by mouth every six hours, 20 mg of propranolol by mouth every six hours, and 40 mEq of potassium chloride by mouth once daily. He was also instructed to avoid prolonged exercise and high carbohydrate meals.

By August 16, he had had only one episode of mild weakness. At this time, the T_4 was 9.3 $\mu\text{g}\%$ and RT3U was 31.4%. The dose of propylthiouracil was gradually tapered at this time and oral potassium supplements were discontinued. On September 13, the T_4 was 7.6 $\mu\text{g}\%$ and RT3U was 27.1%. Propranolol was discontinued and propylthiouracil was tapered further. Through November 15, he continued to feel well and had discontinued the propylthiouracil. He was gaining weight and was experiencing no weakness. The thyroid gland was estimated to be normal size at that time and was 15.2 $\mu\text{g}\%$ and RT3U was 32.1%.

DISCUSSION

Hypokalemic periodic paralysis is an unusual metabolic disorder which occurs both in a familial form and in association with thyrotoxicosis. The familial variety was described first and is the most common. It has no apparent relationship to thyroid function. The thyrotoxic variety was first described by Rosenfeld in 1902 (cited by Linder¹). In 1931, Dunlap and Kepler reported the first cases of thyrotoxic periodic paralysis from the United States,² and there have since been several additional small series from the country and Canada.^{1, 3-10} The paralytic episodes of familial and of thyrotoxic hypokalemic variety share the following common features:¹¹ (a) they can be provoked by rest after prolonged exercise and by ingestion of large amounts of carbohydrate; (b) they remit spontaneously, usually without sequelae; (c) they are diminished and sometimes prevented by potassium administration; (d) they rarely involve bulbar or cranial musculature; (e) sensory and sphincter involvement are virtually unknown; and (f) hypokalemia is usually, but not always, present.

There are several features more characteristic of the thyrotoxic form: (a) weakness is experienced only while the patient is hyperthyroid; (b) the onset of attacks is later in life, usually between the ages of 20 and 30 years, possibly corresponding to the peak onset of thyrotoxicosis; (c) there is rarely a family history of periodic paralysis; and (d) there is a marked predilection for Orientals, especially Japanese. Of the approximately 500 cases reported in the literature, more than 90% of the patients have been Orientals. The disorder is seldom observed in Caucasians.⁵ In addition, the male:female ratio is high, which is remarkable considering that thyrotoxicosis is more prevalent in women. In Satayoshi's series of 432 hyperthyroid patients,¹² 30% of the men and only 2% of the women had associated periodic paralysis. The predilection for men is less pronounced in the familial form or about 3:1. A recent publication¹³ suggests a genetic HLA marker (A2-BW22 and AW 19-B17) for periodic paralysis in the thyrotoxic state, at least within the Oriental population that was studied.

Chronic thyrotoxic myopathy and myasthenia gravis associated with hyperthyroidism must be differentiated from thyrotoxic periodic paralysis. Myasthenia gravis usually has ocular, facial or pharyngeal weakness with easy fatigability and recovery after rest. Classically, the weakness is

reversible with cholinesterase inhibition. The onset is rarely acute, and the disease affects all ages, especially women and older men who often have thymomas. Chronic thyrotoxic myopathy is a gradually progressive disorder usually with muscle atrophy.¹⁴ Bulbar weakness is more common than in periodic paralysis and reflexes are normal or accentuated. Thyrotoxic myopathy resolves slowly with treatment of hyperthyroidism. As in myasthenia gravis, there is no episodic hypokalemia.

Several theories have been proposed to explain the biochemical basis of periodic paralysis, but none is entirely satisfactory. Hypokalemia is not the sole explanation, since weakness may occur in the absence of low potassium and vice versa.^{15, 16} The cause of the hypokalemia also is unknown although there appears to be an influx of potassium into the muscle during an attack.¹¹ There is no concomitant urinary potassium wastage.¹¹ In fact, there is reduced excretion proportional to the serum hypokalemia.¹¹

The relationship of weakness to carbohydrate ingestion and glucose loading led several investigators to study the role of insulin in periodic paralysis. Exogenous insulin produces paralysis in potassium-depleted rats, possibly by reducing membrane polarity through an increased sodium influx in conjunction with reduced potassium conductance.^{17, 18} Sodium retention has preceded paralytic attacks in some patients and insulin can be used to induce paralytic attacks in patients. Nevertheless, the relationship of endogenous insulin to spontaneous attacks is not clear. Shishiba *et al* demonstrated a ten-fold rise in endogenous insulin during spontaneous episodes,¹⁹ but a recent report has not confirmed this observation.²⁰ The reason for sodium retention in skeletal muscle prior to a paralytic attack likewise is not clear. Changes in serum aldosterone concentrations or in aldosterone secretion have not been demonstrated.²¹

Excess calcium concentration and a disturbance of calcium movement also have been implicated in the pathogenesis of thyrotoxic periodic paralysis. To support this possibility is the common occurrence of dilated sarcoplasmic reticulum.^{22, 23} Moreover, Au and Yeung have demonstrated decreased activity of the calcium pump.²⁴ Since a disturbance of calcium flux could lead to altered excitation-contraction coupling and muscle dysfunction, the sarcoplasmic reticulum deserves further study in patients with hypokalemic periodic paralysis.

Treatment of thyrotoxic periodic paralysis primarily involves rendering the patient euthyroid. When this is achieved, spontaneous attacks no longer occur.¹¹ Although the acute episode usually remits spontaneously, potassium administration may be helpful, especially with more marked weakness. It appears to be less useful for prophylaxis.¹¹ Avoidance of prolonged exercise and large carbohydrate meals does help to prevent attacks in some patients.¹⁴ Other means of prophylaxis include the use of beta-receptor blockers.^{7, 15, 20, 22} In three studies, nine of 13 patients had fewer episodes of weakness while receiving propranolol.^{7, 15, 20}

SUMMARY

A patient is described who illustrates the importance of making the diagnosis of thyrotoxic periodic paralysis, even if some of the features appear atypical. The disorder does occur in white persons, although it is very unusual. Furthermore, attacks may not always present with hypokalemia. As is illustrated by our patient, attaining euthyroidism eliminates the attacks of paralysis, thus providing a more satisfactory treatment than is available for the familial form of hypokalemic periodic paralysis. Until the patient becomes euthyroid, however, propranolol should be administered and avoidance of prolonged exercise and high carbohydrate meals should be stressed.

Acknowledgement — The authors express appreciation to Dr. Gastone Celesia, Dr. Neil Gallagher and Dr. Coy D. Fitch for their assistance in preparation of this manuscript.

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GEORGE E. MAGALETTA, M.D., *Cape Girardeau*
and GERARD VAN LEEUWEN, M.D., *Jefferson City*

Southeast Missouri Maternity Clinic

BECAUSE SO MANY PHYSICIANS had been discouraged from accepting "the card" from the Missouri Medicaid Program, many pregnant, medically indigent women were finding it difficult to obtain adequate prenatal and delivery care in the Cape Girardeau and Southeast Missouri area. This fact was of great concern to the Cape Girardeau County Area Medical Society and of special concern to those members who often met these women for the first time when they appeared in the emergency room at one of the Cape Girardeau hospitals.

These concerns prompted a period of considerable study, consultation with Dr. Herbert Domke and his associates in the Missouri Division of Health and much hard work by interested area physicians, local community organizations and the administrator of Southeast Missouri Hospital and his staff. As a result, a proposal was formulated and submitted to the Missouri Division of Health in December 1976 by the Cape Girardeau Area County Medical Society seeking support for a prenatal and delivery care system for the medically indigent women of the area.

The grant application was approved and put into operation on July 15, 1977.

We believe that this cooperative approach between a county medical society and a state division of health is unique in the Midwest and that other areas may eventually attempt establishment of a similar prenatal system. The Southeast Missouri Maternity Clinic has now been in operation

for 21 months with the case load at predicted levels.

BACKGROUND

Since its beginning, the Cape Girardeau County Area Medical Society has been deeply concerned with medical care in its area, especially medical care of the indigent and, most especially, medical care of the indigent pregnant patient and her baby.

After Medicaid became available and physicians gradually stopped accepting "the card" as a means of payment for medical care because of its multiple shortcomings, the emergency care of the pregnant patient became of serious and vital concern. It was a growing problem for the physicians, the hospital and the citizens of the Cape Girardeau area. Severely ill, pregnant women were appearing in increasing numbers at the emergency room in various stages of pregnancy, labor, delivery and postpartum. They had all the usual as well as the unusual complications seen in patients with no or only poor delivery or prenatal care or both. It also was noted that the truly medically indigent pregnant patient was on the increase, i.e., without hospitalization, money or Medicaid. It seemed that care for the majority of these patients was available locally if only the expertise and the facilities could be properly mobilized.

By this time, perinatal care had become more sophisticated than it was before Medicaid. Despite this sophistication, there was a general increased awareness of pregnancy problems and the principles of high risk care and regionalization. Medical people who were not obstetrically oriented were discussing these concerns at local and state meetings with far more sympathy and productive understanding than ever before in the history of obstetrics. Also, patients, personnel and equipment were centrally located after one of the two major hospitals in Cape Girardeau closed its obstetrical department.

As the above difficult problems were being solved in 1974, the Committee for the Prevention of Mental Retardation met for the first time in Columbia. It was known as the Committee for

The planning, development, operation and funding of the Southeast Missouri Maternity Clinic are described in this article. The project is discussed because of its unique operation, which is a cooperative venture between the Cape Girardeau Area County Medical Society and the Missouri Division of Health.

Dr. Magaletta is in the private practice of obstetrics in Cape Girardeau. Dr. Van Leeuwen is a pediatrician-neonatologist from the Missouri Division of Health.

House Bill 1686. At meetings of the group, the principles of high risk maternal care and regionalization were discussed. When concerns of the state of Missouri were found to coincide with those of the Cape Girardeau County Area Medical Society, communication, planning and hard work followed with the encouragement and expertise of Dr. Domke and his associates in the Missouri Division of Health.

The Southeast Missouri Maternity Clinic was conceived with the promise from the membership of the Cape Girardeau Area County Medical Society that if pregnancy care were guaranteed, general care and nonobstetrical consultation also would be given to help the few overburdened physicians who had always accepted Medicaid as payment in full.

At the present time, there is little reason for any pregnant patient in Southeast Missouri not to re-

ceive excellent care either in the Cape Girardeau area or at a tertiary care center.

OPERATION OF THE SOUTHEAST MISSOURI MATERNITY CLINIC

On July 15, 1977, with funding received from the Division of Health, the first clinic was held in examination rooms provided by the Southeast Missouri Hospital in Cape Girardeau. Three of the obstetricians and gynecologists, all members of the Cape Girardeau Area County Medical Society, had agreed to be present on a rotating basis at each clinic session. A maternity nurse hired by the clinic also was in attendance. Since that time, another obstetrician-gynecologist, also a member of the Cape Girardeau Area County Medical Society, has been added to the rotating staff. A licensed practical nurse and volunteer aides also have joined the staff to operate the clinics twice

TABLE I
SOUTHEAST MISSOURI MATERNITY CLINIC
July 15, 1977-March 31, 1979, 21 Months

	July 1977 FY June 1978	July 1978 March 1979	Totals Since July 15, 1977		July 1977 FY June 1978	July 1978 March 1979	Totals Since July 15, 1977
<i>General Categories</i>				Phelonephritis	0	0	0
New patients	140	112	252	Multiple pregnancy	0	1	1
Closed cases	81	97	178	Teratogenic viral illness			
Medicaid patients	78	49	127	first trimester	0	0	0
Non-medicaid patients	62	63	125	Premature labor	11	14	25
High risk patients	8	10	18	Premature rupture of			
Vaginal deliveries	70	83	153	membranes	9	7	16
C-sections	9	18	27	Fetal distress	2	4	6
D & C	2	3	5	Abnormal presentation	4	4	8
Tubal ligations	4	8	12	C-sections	9	18	27
Married patients	51	50	101	Sepsis	1	2	3
Single patients	66	47	113	Post-date delivery			
Divorced, widowed or				(greater than) 42 weeks	1	3	4
separated	23	15	38	Postpartum psychiatric			
13-15 age range	8	6	14	problems	1	0	1
16-20 age range	67	57	124	Transferred to tertiary			
21-30 age range	54	42	96	level obstetrical center	3	2	5
31-40 age range	11	7	18	Hypertension	13	16	29
Cape Girardeau County	116	81	197	<i>Neonatal Categories</i>			
Scott County	15	17	32	Neonatal deaths	3	1	4
Bollinger County	5	8	13	Prematurity	13	9	22
Perry County	4	4	8	Small for gestational age	1	0	1
Stoddard County	0	1	1	Dysmaturity	0	1	1
New Madrid County	0	1	1	Respiratory distress	6	3	9
<i>Maternal Categories</i>				Birth injuries	0	0	0
Antepartum hemorrhage	4	8	12	Sepsis	1	2	3
Antepartum fetal death	6	6	12	Hypoglycemia	1	0	1
Preeclampsia	2	6	8	Congenital anomalies	6	2	8
Diabetes	2	2	4	Hemolytic disease	0	0	0
Urinary tract infections	12	15	27	Transferred to high risk			
Anemia (less than) 11.0%	29	29	58	neonatal center	2	3	5
Polyhydramnios or				Hypocalcemia	0	0	0
oligohydramnios	0	0	0	Amnionitis	0	0	0
Rh incompatibility	0	0	0				

weekly. Deliveries are made by one of the four physicians serving the Southeast Missouri Maternity Clinic. Funds available for the care of patients who have been accepted by Medicaid are now being collected by the Clinic's administrative personnel. Financial assistance for the care of patients who do not qualify for Medicaid support is provided by the state program for the prevention of mental retardation.

This program calls for full reimbursement for obstetric care for the six most common complications of pregnancy associated with infant mortality or mental retardation. The same state legislation provides for treatment of selected infants with respiratory distress syndrome.

In the fall of 1978, additional federal and state funds became available under a federally sponsored program called Improved Pregnancy Outcome (IPO). These funds have been used to start a prenatal clinic in Kennett and to assist the St. Louis MCH Council.

The Southeast Missouri Maternity Clinic is now completing its second full year of operation. Statistics representing operations as of March 31, 1979 are shown in Table I.

DISCUSSION

There is documented evidence to which these new clinics and the Division of Health are addressing themselves. First, nearly 30% of all pregnancies are at some degree of risk. Second, only 70% of all women who become pregnant and deliver in Missouri receive adequate prenatal care (regular care in the second and third trimesters). Third, if the patient is well cared for prenatally, there is no question that pregnancy outcome is improved. Also, there is less maternal morbidity, a lower neonatal death rate, fewer

premature births and fewer sick newborns.

The emphasis in perinatology throughout the country is rapidly shifting toward the obstetric side. This follows the old pattern of human disease; discovery, naming, finding the etiology, improving the treatment and, finally, prevention.

We are now rapidly, if belatedly, focusing major attention in two areas. The first is to improve the care that can be delivered in intermediary hospitals. This serves the purpose of relieving the patient load in the tertiary centers and decreasing the amount of family separation. The second is to attempt to prevent many neonatal tragedies through improved prenatal care. This brief article describes what we believe is a rather unique method of obstetric care and delivery.

SUMMARY

We have outlined operations of the first 21 months of the Southeast Missouri Maternity Clinic. There were 180 deliveries with a total of 252 patients. Care for 18 patients with high risk pregnancies was paid for by the state program to prevent mental retardation. We wish to emphasize that approximately half of the total number of pregnant women would not have received adequate prenatal care without this state program. Many of these patients would have had high risk pregnancies resulting in expense to tertiary centers, to say nothing of the poor maternal and fetal outcome.

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Hypokalemic Periodic Paralysis

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President's Message

Missouri Medicaid will soon be problem-free if the state legislature and others follow the plan outlined for the program by John G. Hall, deputy director of Medical Services of the Missouri Division of Family Services at the December meeting of the Executive Council of the MSMA. Although this prediction may be a trifle over-optimistic, it was clear from listening to Mr. Hall that he has a firm grasp on what the problems have been with Medicaid in Missouri and what he intends to do about them.



Andrew McCause, M.D.

Physicians are the next to the lowest of the "vendors" in their rate of reimbursement as a percentage of their charges — 57%. (Podiatrists are lowest.) It was pointed out to Mr. Hall that this affects primary care physicians who see Medicaid patients in significant numbers most seriously. Surgeons and others who have a higher cost service and do not see as many of these patients are not apt to have their own practices affected quite so adversely.

The new computer service for Missouri Medicaid, E. D. S. Federal, has sent out rather lengthy questionnaires to Missouri physicians as a part of their upgrading of a totally inadequate computerized system of claims reimbursement. Many physicians who have had grievances with Medicaid in the past have developed a somewhat cynical attitude toward the prospect of any improvement in the pro-

gram and have not sent back the requested information. Certainly, there will be fewer physician headaches if they do not participate in Medicaid, but the patients are there just the same and they need the care.

Last month, the yellow pages of MISSOURI MEDICINE gave information on filing Medicaid claims which should help in processing claims of these patients who also have Medicare. In addition, a request has been made for a significant increase in funding from the legislature which should allow an incremental increase in physician reimbursement.

It is my belief that Mr. Hall is headed in the right direction and that he is capable of doing the job. I urge all Missouri physicians to monitor Medicaid developments closely and to help in any appropriate way to improve the record of the State of Missouri in assisting these needy patients.



MSMA Auxiliary



Mrs. Rudy Ruhling
President

I am happy to present Mrs. Gary A. Dyer as a guest columnist. As our MSMF Chairman, she has an important message.

UNDERSTAND OUR UNIQUENESS

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The Missouri State Medical Association is quite unique in its sponsorship of the Missouri State Medical Foundation, a medical student loan fund with some special characteristics:

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Thank you,
Mrs. Gary A. Dyer
MSMF Chairman

Preliminary Program

MISSOURI STATE MEDICAL ASSOCIATION

122nd Annual Session

Crown Center Hotel, Kansas City

April 17-20, 1980

Thursday, April 17

- 8:00 AM Registration of Delegates, Century Foyer.
- 10:30 AM **House of Delegates, Opening Session.** Century Room.
- 1:00 PM Reference Committee Meetings.
- 6:30 PM Missouri State Surgical Society Board of Directors Cocktails (Governors Board Room) and Dinner (Senators Board Room).
- 6:30 PM MSMA Auxiliary Auction. Centennial "B" Room.

Friday, April 18

- 7:00 AM District Breakfasts — 1st Councilor District. Ambassadors Board Room.
5th Councilor District. Governors Board Room.
10th Councilor District. Senators Board Room.
- 7:00 AM Fun Run.
- 7:15-
11:30 AM Complimentary Coffee and Rolls. Century Foyer.
- 8:00 AM Registration. Century Foyer.
- 8:30 AM Missouri University Board of Directors Breakfast and Meeting. Westport Room.
- 9:00-
10:30 AM **General Session** — "*Physician, Heal Thyself.*" Century Room.
Introduction: Andrew McCause, M.D., Kansas City, MSMA President.
Speaker: Gordon H. Deckert, M.D., Oklahoma City, Okla., Professor and Head,
Department of Psychiatry & Behavioral Sciences, University of Oklahoma.
- 11:00 AM-
12:30 PM **Scientific Session** Sponsored by the Missouri State Orthopedic Association. Shawnee Room.
- 11:00-
11:40 "Common Foot Problems in Athletes," Lawrence G. Evans, Jr., M.D., St. Louis, Assistant Professor of Orthopedic Surgery, St. Louis University School of Medicine.
- 11:40-
12:20 "Common Hand Injuries in Athletes," Barry Gainor, M.D., Columbia, Assistant Professor of Orthopedic Surgery, University of Missouri School of Medicine.
- 12:20-
12:30 Discussion from the floor.
Moderator: Robert E. Burdge, M.D., St. Louis.
- 11:00 AM-
12:30 PM "*Up-Date of Clinical Trials: National Surgical Adjuvant Breast Project.*" Independence Room.
Speakers: Paul G. Koontz, Jr., M.D., Kansas City, Clinical Professor of Surgery, University of Missouri Kansas City School of Medicine and Director of Surgical Residency Program, St. Luke's Hospital.
Karl H. Hanson, Jr., M.D., Kansas City, Private Practice (Hematology-Oncology).
Moderator: Daniel J. Lauer, M.D., Kansas City.
Sponsored by the American Cancer Society, Missouri Division, Inc.
- 11:00 AM-
12:30 PM **Scientific Session** Sponsored by the Missouri Dermatological Society, Mission Room.
Speaker: E. Wm. Rosenberg, M.D., Memphis, Tenn., Professor of Dermatology, University of Tennessee.
Moderators: Larry E. Millikan, M.D., Columbia
Gary A. Dyer, M.D., St. Joseph
- 11:00 AM-
12:30 PM "*1980 Update in Clinical Medicine.*" Sponsored by the Missouri Society of Internal Medicine. Roanoke Room.

- 11:00-
11:30 "Outpatient Management of Asthma," Susan Pingleton, M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine.
- 11:30-
12:00 "Newer Concepts in Hodgkin's Disease," Adolphus C. Favors, Jr., M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine
- 12:00-
12:30 "Management of Diabetic Ketoacidosis — Selected Aspects," Stephen Hamburger, M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine.
Moderator: Stephen Hamburger, M.D., Kansas City.
- 11:00 AM-
12:30 PM Rehabilitation of the Cardiac Patient, Penn Valley Room.
Speaker: John Naughton, M.D., Buffalo, NY, Dean, School of Medicine, State University of New York at Buffalo.
Moderator: Eugene Langevin, D.O., Joplin.
Sponsored by the American Heart Association, Missouri Affiliate, Inc.
- 11:00 AM-
12:30 PM "Sarcoidosis: How Should It Be Diagnosed?" Presidents Room.
Speaker: Richard B. Byrd, M.D., Scott Air Force Base, Ill., Colonel, U.S. Air Force; Chairperson, Department of Pulmonary Diseases, USAF Medical Center.
Moderator: Daniel L. Schlozman, M.D., Kansas City.
Sponsored by the Missouri Thoracic Society.
- 11:00 AM-
12:30 PM Headache: Differential Diagnosis, Management, Bio-feedback and Other Modalities, Centennial "B" Room.
Speaker: Seymour Diamond, M.D., Chicago, Ill., Adjunct Associate Professor of Neurology, The Chicago Medical School, and Director, Diamond Headache Clinic.
Sponsored by the Missouri Academy of Family Physicians.
- 12:30-
2:00 PM Missouri University Medical Alumni Luncheon. Century Room.
- 12:30 PM Missouri Thoracic Society Luncheon. Governors Board Room.
- 1:00 PM Missouri Psychiatric Association Business Meeting, Presidents Room.
- 1:30 PM MOMEDICO Board Meeting, Independence Room.
- 2:00-
3:30 PM Headache: Differential Diagnosis, Management, Bio-feedback and Other Modalities (Continued), Centennial "B" Room.
Speaker: Seymour Diamond, M.D., Diamond Headache Clinic, Chicago, Ill.
Sponsored by the Missouri Academy of Family Physicians.
- 2:00-
3:30 PM Scientific Session Sponsored by the Missouri State Surgical Society. Shawnee Room.
- 2:00-
4:00 PM Mucocutaneous Candidiasis. Mission Room.
- 2:00-
3:00 Charles Kirkpatrick, M.D., Denver, Colo., Head, Clinical Allergy and Hypersensitivity Section, National Institutes of Health.
Moderator: Larry E. Millikan, M.D., Columbia.
- 3:00-
4:00 Management of Common Skin Conditions
Panel Participants: Jerold Rau, M.D., Kansas City
Philip Anderson, M.D., Columbia
Joseph M. Duvall, M.D., St. Louis
Wilfred E. Wooldridge, M.D., Springfield
Victoria Gunn, M.D., Jefferson City
Moderator: Gary A. Dyer, M.D., St. Joseph.
Sponsored by the Missouri Dermatological Society.
- 2:00-
3:30 PM "1980 Update in Clinical Medicine" (Continued).
Sponsored by the Missouri Society of Internal Medicine. Roanoke Room.
- 2:00-
2:30 "Pulmonary Embolism, Fact or Fancy," Robert Conn, M.D., Kansas City, Professor of Medicine, University of Missouri School of Medicine and Chairman, Department of Medicine, Truman Medical Center.
- 2:30-
3:00 "Drug Management of Peptic Ulcer Disease," Joel Covinsky, Pharm.D.,

Kansas City; Associate Professor, University of Missouri School of Medicine and Pharmacy.

3:00-

3:30 "Update on Venereal Disease," Charles K. McAllister, M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine.

Moderator: Stephen Hamburger, M.D., Kansas City.

2:00-

3:30 PM How to Handle Infidelity in Therapy, Presidents Room.

Speaker: Mary Ann Bartusis, M.D., Morrisville, Penn., Psychiatrist in Private Practice, Author of Best Selling Book, "Every Other Man," regarding Infidelity and Clinical Assistant Professor in Psychiatry, University of Pennsylvania School of Medicine.

Sponsored by the Missouri Psychiatric Association.

3:00-

4:00 PM Missouri State Medical Foundation Annual Meeting. Century Room.

4:00 PM House of Delegates, Second Session. Century Room.

6:00 PM Reference Committee Meetings.

6:00-

7:30 PM Reception Honoring Incoming MSMA Auxiliary President. Century Foyer.

6:30 PM Missouri State Surgical Society Cocktails & Dinner. Centennial "B" Room.

6:30 PM Missouri Society of Pathologists Cocktails (Westport Room) and Dinner (Presidents Room).

Missouri Psychiatric Association Cocktails and Dinner, Liberty Room.

Guest Speaker: Mary Ann Bartusis, M.D., Morrisville, Penn.

Topic: "Medical Marriages"

7:00 PM Missouri Dermatological Society Cocktails and Dinner. Mission Room.

Saturday, April 19

7:00 AM 10th Councilor District Breakfast. Senators Board Room.

7:00 AM Missouri Ear, Nose and Throat Association Breakfast. Governors Board Room.

7:30 AM Missouri Ophthalmological Society, Inc. Board of Directors Breakfast. Ambassadors Board Room.

7:30 AM MSMA Auxiliary Public Affairs Breakfast. Century Room.

8:00 AM Registration. Century Foyer.

8:00-

11:00 AM Complimentary Coffee and Rolls. Century Foyer.

9:00 AM-

4:00 PM Scientific Session Sponsored by the MSMA Committee on the Impaired Physician, Westport Room.

9:00-

10:30 *The Story of an Impaired Physician*, G. Douglas Talbott, M.D., Smyrna, Ga., Medical Director, Ridgeview Institute.

10:45-

11:30 *A Psychiatrist Looks at Alcohol and Drug Abuse Treatment Programs*, David L. Ohlms, M.D., St. Louis, Psychiatrist in Private Practice.

11:30-

12:30 *The Mentally and Emotionally Impaired Physician*, George Penn, M.D., Topeka, Kans., Staff Psychiatrist and Section Chief, Emergency Admissions Unit, The Menninger Foundation.

1:30-

2:15 *The Impaired Physician's Family*, Mrs. Jackie Harrison, Daytona Beach, Fla., Director, Health Service Clinic, Daytona Beach Community College.

2:15-

3:00 *The Sick Doctor and the Missouri State Board of Registration for the Healing Arts*, Mr. Gary Clark, Jefferson City, Executive Secretary, Missouri State Board of Registration for the Healing Arts.

3:00-

4:00 Panel Discussion — "Problems of Confrontation."

9:00 AM-

5:00 PM *Cutaneous Surgery Course*. Liberty Room.

Speaker: Loren E. Golitz, M.D., Denver, Colo., Associate Professor of Dermatology and Pathology, University of Colorado Medical center, Chief, Dermatology, Denver General Hospital.

Sponsored by the Missouri Dermatological Society and the American Academy of Dermatology.

9:00-

10:30 AM Scientific Session Sponsored by the Missouri OB-GYN Society. Centennial "B."

9:00-

11:00 AM *Immunodiagnosis and Immunoevaluation, 1980.* Shawnee Room.

9:00-

9:30 *Immunology, Basic Principles*, Larry E. Millikan, M.D., Columbia, Associate Professor, Division of Dermatology, University of Missouri School of Medicine.

9:30-

10:30 *Clinical/Cutaneous Manifestations of Immune Abnormalities*, E. William Rosenberg, M.D., Memphis, Tenn., Professor, Department of Dermatology, University of Tennessee.

10:30-

11:00 *Laboratory Evaluation of Immune Function, Part 1*, Charles Kirkpatrick, M.D., Denver, Colo., Head, Clinical Allergy & Hypersensitivity Section, National Institutes of Health.

Moderator: Larry E. Millikan, M.D., Columbia.

Sponsored by the Missouri State Allergy Association.

9:00-

10:30 AM *Scientific Session* Sponsored by the Missouri Ophthalmological Society, Inc. Roanoke Room.

9:00-

11:00 AM *Communicative Disorders in Children with Emphasis on the Hearing Impaired Child*, Penn Valley Room.

Speakers: Patrick Brookhouser, M.D., Omaha, Neb., Executive Director, Boystown Institute.

Edward L. Franklin, M.D., Overland Park, Kans., Director, Gallaudet Foundation, Mid-Central Extension Center, Johnson County Community College. Emma Curry, Sedalia.

Sponsored by the Missouri Ear, Nose and Throat Association.

9:00 AM-

12:30 PM *Scientific Session* Sponsored by Physical Medicine and Rehabilitation. Independence Room.

9:30-

10:10 *"Nerve Entrapment in Lower Extremities,"* Jan McClain, M.D., Chicago, Professor of Rehabilitation Medicine, Northwestern University Medical School.

10:10-

10:40 *"Nerve Entrapment of Upper Extremities,"* Otakar Machek, M.D., St. Louis.

10:40-

12:30 Panel Discussion.

Moderator: Otakar Machek, M.D., St. Louis.

9:00-

10:30 AM *"Meet Your AMA Delegates."* Mayors Board Room.

9:30-

11:30 AM Missouri Radiological Society Board Meeting. Trustees Board Room.

11:00 AM-

12:30 PM *Scientific Session* Sponsored by the Missouri OB-GYN Society. Centennial "B" Room.

11:00 AM-

12:30 PM *Scientific Session* Sponsored by the Missouri Society of Pathologists. Presidents Room.

11:00 AM-

12:30 PM *Scientific Session* Sponsored by the Missouri State Surgical Society. Shawnee Room.

11:30 AM Missouri Radiological Society Board Luncheon. Officers Board Room.

12:00 NOON Missouri State Allergy Association Luncheon and Meeting. Governors Board Room.

12:00 NOON Missouri Ophthalmological Society Inc. Luncheon. Garden Terrace.

12:30 PM Physical Medicine and Rehabilitation Luncheon. Senators Board Room.

12:30 PM Missouri Women Physicians Luncheon. Penn Valley Room.

Speaker: Mary Ann Bartusis, M.D., Morrisville, Penn.

Topic: "The Impaired Female Physician."

12:30 PM Missouri OB-GYN Society Luncheon. Centennial "B."

12:30 PM Fifty-Year Club Luncheon. Ambassadors Board Room.

1:30 PM MMPAC Meeting. Mayors Board Room.

1:00-

4:00 PM *Scientific Session* Sponsored by the Missouri Radiological Society. Congressional Board Room.

1:00-

1:40 *"Air Contrast Upper Gastrointestinal Studies; Technique and Cases,"* James K. Fisher, M.D.

1:45-

2:25 *"Interventional Radiology of the Biliary Tract,"* Kendrick C. Davidson, M.D.

- 2:30-
2:55 "Inflammatory Bowel Disease as Seen on Air Contrast Barium Enema Examinations," James K. Fisher, M.D.
3:00-
3:40 "Epidural Venography," David Fortin, M.D.
4:00 Business Meeting — Missouri Radiological Society.
Sponsored by the Missouri Radiological Society.
- 2:00-
4:00 PM Continuation of Scientific Session Sponsored by the Missouri State Allergy Association, Mission Room.
2:00-
2:30 *Part 2, Laboratory Evaluation.*
2:30-
3:15 *What's New in Immunologic Research/Reports from the Allergy Programs.*
3:15-
3:45 *Demonstration of Laboratory Tests.*
3:45-
4:00 *Questions and Answers.*
Panel Participants: E. William Rosenberg, M.D., Memphis, Tenn.
Charles Kirkpatrick, M.D., Denver, Colo.,
Robert Dockhorn, M.D., Prairie Village, Kan.,
Raymond G. Slavin, M.D., St. Louis.
Moderator: Robert Dockhorn, M.D.
- 2:00-
3:30 PM *Scientific Session* Sponsored by the Missouri Society of Pathologists. Shawnee Room.
4:00 PM Missouri State Allergy Association Business Meeting. Governors Board Room.
5:00-
6:30 PM Missouri University Alumni Reception. Liberty Room.
5:00-
6:30 PM Washington University Alumni Reception. Shawnee Room.
5:00-
6:30 PM St. Louis University Alumni Reception. Mission Room.
6:30 PM **MSMA Social Hour.** Century Foyer.
7:15 PM **MSMA Annual Banquet.** Century Room.

Sunday, April 20

- 7:30 AM House of Delegates Breakfast Meeting. Century Room.
9:00 AM-
1:00 PM Missouri Dermatological Society Meeting — University of Missouri, Kansas City.

Preliminary Program — 55th Annual Convention

MSMA AUXILIARY

Crown Center Hotel, Kansas City

April 17-20, 1980

Thursday, April 17

- 10:00 AM-4:00 PM Registration and Information. Roanoke Foyer.
10:30 AM Auxiliary Report to the MSMA House of Delegates.
4:00 PM Pre-Convention Board Meeting. Westport Room.
6:30 PM Second Annual Benefit Auction for AMA-ERF and MSMF.

Friday, April 18

- 7:15-11:30 AM MSMA Complimentary Coffee and Rolls. Century Foyer.
8:00 AM-4:00 PM Registration and Information. Roanoke Foyer.
9:00 AM Seminar: "Physician Heal Thyself"
Speaker: Gordon H. Deckert, M.D., Oklahoma City, Okla., Professor and Head,
Department of Psychiatry and Behavioral Sciences, University of Oklahoma.
(Auxiliary members are urged to attend this seminar jointly sponsored with the MSMA.)
10:45 AM General Assembly and Business Meeting. Liberty Room.
12:00 NOON Councilor's Luncheon. Liberty Room.
2:00-4:30 PM General Session and Business Meeting. Liberty Room.
6:00 PM Reception honoring MSMA Auxiliary President for 1980-1981. Century Foyer.
7:30 PM Dutch Treat Dinner.

Saturday, April 19

- 7:30 AM Public Affairs Breakfast. Century Room.
8:00-11:00 AM MSMA Complimentary Coffee and Rolls. Century Foyer.
9:00 AM General Assembly and Workshop. Century Room.
12:00 NOON Installation Luncheon. Century Room.
2:00 PM Post-Convention Board Meeting. Century Room.

*"Without your help
 . . . I simply
 would not have made it
 through medical school"*

(The following letter was received from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.

"I sincerely appreciate the efforts which you and others put into the Missouri State Medical Foundation and all other student loan funds. You should feel a quiet heroism for the assistance you lend to needy students . . . without your help, I simply would not have made it through medical school."

The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

Send a Check Today to MSMF!

MISSOURI STATE MEDICAL FOUNDATION

113 Madison St., Jefferson City, Missouri 65102

• SPONSORED BY THE MISSOURI STATE MEDICAL ASSOCIATION •

The Missouri State Medical Foundation is classified by the Internal Revenue Service under Section 501(c)(3). Individuals may deduct up to 50% of their adjusted gross income for contributions made to the MSMF.



Transactions of the Missouri State Medical Association

Fourth Interim Session

November 10-11, 1979

This report of the 1979 MSMA Interim Session held in Columbia is designed to provide each member with a concise but complete summary of actions taken by the House of Delegates. The minutes of this session are available to members in the MSMA Headquarters Office in Jefferson City.

Changes in the MSMA Constitution

The following Constitutional changes were proposed at the 1979 MSMA Annual Session and were adopted at the 1979 Interim Session.

In accordance with the Constitution, these changes were sent to each component medical society at least two months prior to this meeting and have been published in the Journal of the Association.

Article IV. House of Delegates

The first change amends Article IV by deleting the second paragraph of that article.

Article V. Council

The Council shall be the executive body of this Association when the House of Delegates is not in session. It shall be the judicial body of the Association when matters are referred to it for decision by the Association, by component societies or by individual members thereof. It shall consist of the President, President-Elect, Im-

mediate Past President, Secretary, Treasurer and the duly elected Councilors from each Councilor District, *and a duly elected medical student Councilor*. A majority of voting members of the Council shall constitute a quorum.

Article VII. Officers

Section 2. The Officers shall be elected annually. The term of Councilors and Vice-Councilors shall be two years, *except for the duly elected medical student Councilor who shall be elected for a one year term*. Half of the membership of the Council shall be elected each year. The Secretary and Treasurer shall be elected by the Council from the general membership. The delegates present from each Councilor District shall meet prior to the last day of the Annual Session and elect the Councilors and Vice-Councilor from that district. *The Delegates from the medical school component societies shall meet prior to the last day of the Annual Session and elect a medical student Councilor and Vice-Councilor*. In the event of death, resignation or removal of any Councilor, the Vice-Councilor shall automatically fill the vacancy. The officers shall serve until their successors are elected and installed.

Changes in the MSMA Bylaws

Chapter I. Membership

Chapter I. Membership is changed to add a fourth class of members:

STUDENT MEMBERS shall be limited to those members of component societies who are pursuing a course of study leading to the degree of Doctor of Medicine in a medical school approved by the American Medical Association and shall enjoy all of the privileges of active membership. Section 4 on Associate Members would be deleted.

Chapter III. House of Delegates

Section 2A. Each Medical School Component Society shall be entitled to send each year two delegates, elected by the Component Society, to the House of Delegates at the Annual and Interim Sessions. Each delegate shall be a member in good standing with this Association and the Component Medical Society. Such student delegates shall enjoy all the rights and privileges of all other delegates.

Chapter III. House of Delegates

Section 2. Delegates to the House of Delegates shall be allotted according to the following formula:

(a) Each component society shall be entitled to send each year, one delegate or one alternate for each 25 full paid members or fraction

thereof in the Association on December 31, of the previous year.

(b) One additional delegate or alternate is allowed for each 100 members or major fraction thereof as of December 31, of the previous year.

(c) When a component society's full paid membership as of December 31 of the previous year reaches 1,000, that society shall be entitled to 30 additional delegates or alternates.

(d) When a component society's full paid membership as of December 31 of the previous year reaches 2,000, that society shall be entitled to an additional 50 delegates or alternates.

(e) Each component society which is composed of two or more counties shall be entitled to at least one delegate from each of the counties having one or more member physicians practicing in the county of which the component society is composed; however, such delegates from multi-county component societies must practice or reside in the county they represent. Alternate delegates may be elected from the entire membership of the component medical societies.

(f) All Past Presidents of the Association, the Speaker and Vice-Speaker shall serve as Delegates-at-Large.

Chapter IV. Election of Officers

Section 1. The President on the first day of the Annual Session shall select a Committee on Nominations consisting of eleven dele-

gates one from each Councilor District and one from a Medical School component society.

Section 4B. Delegates from the four Medical School Component Societies shall combine and elect one Councilor and Vice-Councilor. The duly elected Councilor and Vice-Councilor from the medical student component societies shall serve on an annual renewable basis.

The Bylaws also are changed to include "the per capita levy for student members shall be \$5.00 per year" and to add "medical student" to appropriate sections in the Bylaws.

Chapter IX. Rules of Conduct

Section 1. The ethical principles governing the members of the American Medical Association shall govern members of this Association.

Section 2. Any member of this Association who testifies as a medical expert witness outside of the specialty of the physician represents unethical conduct. In the future, any physician who

testifies as a medical expert witness outside of his specialty or logical extension of his field of expertise or who interferes with the proper administration of justice by misrepresenting his qualifications or giving false or misleading testimony will be subject to expulsion, censorship, or reprimand after due process from the Missouri State Medical Association.

Any member of this Association who testifies as a medical expert witness without meeting the qualifications set forth in this section, shall be subject to expulsion, censorship, or reprimand after a due process hearing as set forth. An expert witness must have basic educational and professional knowledge as a general foundation for his testimony and, in addition, have current personal experience and practical familiarity with the problems being considered and be actively engaged in the practice of the medical subject under discussion.

Nothing in the above is to be construed as preventing the treating physician from testifying on the merits of the case.

Resolutions

Resolution #1 — Equitable Risk Classifications in Medical Liability Premiums

(Introduced by Charles L. Jobe, M.D., Springfield)

Resolved, that the Missouri State Medical Association supports the concept that premium schedules for medical liability insurance should be based on the actual cost and risk of providing that insurance to each individual group or category.

(Resolution #1 was adopted.)

Resolution #2 — Fireworks

(Introduced by Jackson County Medical Society)

Resolved, that the Missouri State Medical Association urges the Missouri General Assembly and other State officials to take such action as might be appropriate to restrict both the sale of fireworks to and the use of fireworks by private individuals who are not experienced or trained in the handling of these dangerous explosives; and be it further

Resolved, that the Council and Legislative Committee of the Association be instructed to pursue the intent of the resolution through their contact with State legislators and other officials.

(Resolution #2 was adopted.)

Resolution #3 — Optometry Drug Law

(Introduced by H. B. Ivy, M.D., Springfield)

Resolved, that the MSMA continues to mount educational and political efforts necessary to defeat any attempt to legislate non-medically trained persons into medical doctors.

(The above Substitute Resolution #3 was adopted.)

Resolution #4 — Separate Department of Health

(Introduced by Jackson County Medical Society)

Resolved, that the Governor and the General Assembly be informed that the Missouri State Medical Association approves, in principle, the formation of a Department of Health and consolidation within the department of all state activities and programs relating to medical care and health care, and be it

Resolved, that the Council and Legislative Committee of the Association be instructed to pursue this goal through their ongoing contacts with the Governor and the General Assembly, and be it further

Resolved, that such legislation includes provisions mandating the appointment of a licensed physician as head of the department.

(The above Substitute Resolution #4 was adopted.)

Resolution #5 — Avenues to Increase Membership

(Introduced by Hubert A. Ritter, M.D., St. Louis)

Resolved, that the MSMA, in cooperation with its component societies and the AMA, makes every possible effort to increase membership at all levels of organized medicine, and be it further

Resolved, that as immediate efforts, the MSMA urges all component societies to activate membership committees to locate and recruit non-members and that each society be urged to review and update its entrance requirements so that the process of joining organized medicine is less complicated and time consuming.

(Resolution #5 was adopted.)

Resolution #6 — Equitable Representation in House of Delegates

(Introduced by the MSMA Council)

Resolved, that on an 11 to 8 vote, the MSMA Council recommends that Chapter III, House of Delegates, Section 2 be changed to read as follows:

CHAPTER III. HOUSE OF DELEGATES

Section 2. Delegates to the House of Delegates shall be allotted according to the following formula:

- (a) Each component society shall be entitled to send each year, one delegate or one alternate for each 25 full paid members or fraction thereof in the Association on December 31 of the previous year.
- (b) One additional delegate or alternate is allowed for each 100 members or major fraction thereof as of December 31, of the previous year.
- (c) When a component society's full paid membership as of December 31 of the previous year reaches 1,000, that society shall be entitled to 30 additional delegates or alternates.
- (d) When a component society's full paid membership as of December 31 of the previous year reaches 2,000, that society shall be entitled to an additional 50 delegates or alternates.
- (e) Each component society which is composed of two or more counties shall be entitled to at least one delegate from each of the counties having one or more member physicians practicing in the county of which the component society is composed; however, such delegates from multi-county component societies must practice or reside in the county they represent. Alternate delegates may be elected from the entire membership of the component medical societies.

- (f) All Past Presidents of the Association, the Speaker and Vice-Speaker shall serve as Delegates-at-Large.

(Resolution #6 was adopted.)

Resolution #7 — Establishment of National Clearinghouse Monitoring Testimony by Expert Witnesses

(Introduced by the Commission on Medical-Legal Affairs — William J. Medlicott, M.D., Chairman)

Resolved, that the MSMA endorses the establishment of a national clearinghouse to monitor the testimony of expert witnesses, and be it further

Resolved, that this clearinghouse would inform the appropriate state societies of the testimony by one of its members out of the state, and be it further

Resolved, that the MSMA participates in the clearinghouse, when established, and be it further

Resolved, that the AMA be informed of this action and a similar resolution be presented to the House of Delegates Meeting at the 1980 Annual Meeting.

(The above Substitute Resolution #7 was adopted.)

Resolution #8 — Expert Medical Witnesses and MSMA Membership

(Introduced by the Commission on Medical-Legal Affairs — William J. Medlicott, M.D., Chairman)

Resolved, that the Bylaws of the Missouri State Medical Association be amended to incorporate the following three Resolves:

Resolved, that testifying as a medical expert witness outside of the specialty of the physician represents unethical conduct. In the future, any physician who testifies as a medical expert witness outside of his specialty or logical extension of his field of expertise or who interferes with the proper administration of justice by misrepresenting his qualifications or giving false or misleading testimony will be subject to expulsion, censorship or reprimand after due process from the Missouri State Medical Association, and be it further

Resolved, that any member of this Association who testifies as a medical expert witness without meeting the qualifications set forth in this section, shall be subject to expulsion, censorship or reprimand after a due process hearing as set forth. An expert witness must have basic educational and professional knowledge as a general foundation for his testimony and in addition, have current personal experience and practical familiarity with the problems being considered and be actively engaged in the practice of the medical subject under discussion, and be it further

Resolved, nothing in the above is to be construed as preventing the treating physician from testifying on the merits of the case.

(Resolution #8 was adopted.)

Resolution #9 — Premarital Blood Tests

(Introduced by Thomas J. Cooper, M.D., St. Louis)

Resolved, that the MSMA recognizes the medical and cost ineffectiveness of premarital blood testing as a method of locating early syphilis cases, and be it further

Resolved, that the MSMA seeks repeal of the statute requiring premarital blood testing in the 1980 General Assembly.

(The above Substitute Resolution #9 was adopted.)

Resolution #10 — Opposing Full Membership Rights for Medical Students

(Introduced by Ozark Medical Society)

Resolved, that they be given a limited membership in the MSMA and that dues be enough to cover the mailing and publication cost of the Missouri State Medical Association Journal, and be it further

Resolved, that medical students be permitted membership in the House of Delegates but denied privilege of holding office or being on the Council.

(Resolution #10 was not adopted.)

Resolution #11 — Opposing Routine Physical Examinations for Teachers

(Introduced by Ozarks Medical Society)

Resolved, that the MSMA recommends that the requirement for physical examinations be dropped and that the only health requirement be a negative tuberculosis skin test or a negative chest x-ray and that these be obtained from a licensed M.D., osteopath or licensed nurse such as a school or public health nurse.

(Resolution #11 was tabled and referred to the MSMA Council for a report back to the House of Delegates.)

Resolution #12 — Application of Podiatrists for Hospital Privileges

(Introduced by J. Russell Weber, M.D., President, Missouri State Orthopaedic Association)

Resolved, that this informational resolution in its entirety be made available to all delegates for their use in assisting local hospital staffs to make informed decisions regarding application of podiatrists for hospital privileges, and be it further

Resolved, that this informational resolution in its entirety be presented to the AMA House of Delegates.

(The above Substitute Resolution #12 was adopted.)

Resolution #13 — Medicaid Reimbursement

(Introduced by the Commission on Medical Economics, Third Party Medicine and Governmental Relations)

Resolved, that the MSMA supports the concept that only licensed physicians (M.D. or D.O.) be reimbursed for medical and surgical services to Medicaid patients, and be it further

Resolved, that no physician currently receiving Medicaid reimbursement have his payments lowered for a given service, and be it further

Resolved, that the Missouri State Medical Association supports the single fee for single service concept in Medicaid payments.

(The above Substitute Resolution #13 was adopted.)

Resolution #14 — Arthritis Plan for the State of Missouri

(Introduced by Jim R. Waterfield, M.D., Springfield)

Resolved, that the Arthritis Plan for the state of Missouri, when fully developed, be presented to the MSMA Council for further study and action.

The above Substitute Resolution #14 was adopted.)

Resolution #15 — Student Membership

(Introduced by Jasper County Medical Society)

Resolved, that the present status quo, as regards student delegates, be maintained and that special student component societies or positions for student councilors not be created.

(Resolution #15 was not adopted.)

Resolution #16 — Full Active Membership for Spouses of Physicians

(Introduced by Jasper County Medical Society)

Resolved, that the MSMA shows its appreciation toward physician spouses prior to any considerations toward medical student membership, grant all physician spouses full membership and rights, and be it further

Resolved, that each MSMA Auxiliary society be allowed one delegate to the House of Delegates, and furthermore, that the president of the MSMA Auxiliary be given all the rights and privileges of a

councilor and the vice-president of the MSMA Auxiliary be seated as vice-councilor.

(Resolution #16 was not adopted.)

Resolution #17 — AMA Chiropractic Policy

(Introduced by Kenneth R. Smith, Jr., M.D., St. Louis Metropolitan Medical Society)

Resolved, that the Missouri State Medical Association instructs its delegation to present to the AMA House of Delegates a resolution suggesting an adequate assessment be levied on all AMA members enabling the AMA to continue to diligently oppose by all legal means the chiropractic intrusion in the practice of medicine.

(The above Substitute Resolution #17 was adopted.)

Resolution #18 — Drug Problem

(Introduced by Edward J. Shaw, M.D., St. Louis Metropolitan Medical Society)

Resolved, that the Missouri State Medical Association sponsors a determined effort to encourage the American Medical Association to prevail upon the United States Congress to pass a law allowing selected members of the medical profession to provide drugs to addicts at a reasonable cost to destroy the motive for turning to crime to obtain these drugs in association with a nationwide effort to cure addiction. In this way at least 40 percent of crime would be prevented and widespread corruption of public officials would be lessened in addition to salvaging thousands of human lives.

(Resolution #18 was not adopted.)

Resolution #19 — Amendment to Revised Statutes of Missouri 202.123 to Increase 96-Hour Involuntary Psychiatric Evaluation and Detention Period to 144 Hours

(Introduced by the Mental Health Committee, St. Louis Metropolitan Medical Society)

Resolved, that the Missouri State Medical Association undertakes legislative effort to increase the period for initial evaluation and detention from 96 hours to 144 hours (6 days).

(Resolution #19 was adopted.)

Resolution #20 — MOMEDICO

(Introduced by the MSMA Council)

Resolved, that the Council be, and the same hereby is, authorized to arrange for the redemption of MSMA Subordinated Notes either by exchange of MOMEDICO stock for such Notes, directly or through other parties, by purchase, or such other means as said Council may determine to be appropriate, and in conjunction therewith to vote by proxy the stock of MOMEDICO owned by MSMA at any special meeting called for the purpose of implementing such transactions, on all matters brought before said meeting, and to enter into all contracts, execute such documents, and perform all other acts as many be necessary to accomplish the offering of such stock in the redemption of such Notes, as of the Council, in its sole discretion, deems appropriate.

(Resolution #20 was adopted.)

Resolution #21 — MSMA Policy on Tobacco Use

(Introduced by Bruce Stoliar, M.D.)

Resolved, that the MSMA adopts a policy concerning tobacco use consistent in form and substance with the AMA policy on the use of tobacco.

(Resolution #21 was adopted.)

Resolution #22

(Introduced by Boone County Medical Society)

Resolved, that the MSMA strongly approves the concept that

those who are seriously ill and in need of psychiatric evaluation and treatment be given reasonable opportunity to receive it and be it further

Resolved, that the MSMA strongly recommends that the amendment of State Statutes on Commitment Procedures to allow for commitment of seriously ill and impaired persons who may not satisfy the "dangerousness" criteria but who are nonetheless due to their illness unable or unwilling to accept and obtain proper care and be it further

Resolved, that the MSMA strongly recommends that the statutes of the State of Missouri regarding commitment be amended so that in counties in which no mental health professional is practicing, any licensed physician be enabled to make proper arrangements for admission for evaluation and treatment.

(Resolution #22 was tabled and referred to the MSMA Council for a report back to the House of Delegates.)

Resolution — AMA Principles of Medical Ethics

Resolved, that the Missouri Delegation be instructed to pursue the continuation of the present Principles of Medical Ethics insofar as is possible.

(This substitute resolution was adopted.)

Resolution — Rapid Weight Reduction Clinics

(Introduced by the Commission on Interspecialty Medicine)

Resolved, that the following statement be published in MISSOURI MEDICINE: "Drugs with thyroid hormone activity, alone or together with other therapeutic agents, have been used for the treatment of obesity. In euthyroid (normal) patients, doses within the range of daily hormonal requirements are ineffective for weight reduction. Larger doses may produce serious or even life-threatening manifestations of toxicity, particularly when given in association with sympathomimetic amines (amphetamines and amphetamine-like drugs) such as those used for their anorectic (appetite control) effects."

(This resolution was adopted.)

Resolution — Clinical Laboratories; Personal Standards

(Introduced by the Commission on Interspecialty Medicine)

Resolved, that the Proposed Clinical Laboratories; Personnel Standards Rules would accomplish by regulatory fiat that which the Department of Health, Education and Welfare was unable to accomplish since 1975 through the legislative process. These regulations would establish qualifications for personnel working in hospital laboratories as well as medical clinics. The impact of these rules would be primarily on rural hospitals and clinics who presently do not have personnel who meet the proposed qualifications on a 24-hour basis. This would further limit the services of physicians in medical clinics and small hospitals and would increase costs of provided services. The Commission wishes a letter of particulars be made available to the MSMA Council and to various representatives of the specialty organizations represented on the Commission on Interspecialty Medicine with the intent being that communications be instituted with DHEW to express concern over the proposed rules. The necessity of early action is mandated by the fact that replies must be postmarked on or before December 11, 1979.

(This resolution was adopted.)

Resolution — In Memoriam

(Introduced by the MSMA Council)

WHEREAS, Louis P. Hetlage, M.D., of Troy, Missouri passed away on August 9, 1979, and

WHEREAS, Doctor Hetlage was Vice-Chairman of the Council of the Missouri State Medical Association at the time of his death, and

WHEREAS, he devoted many hours of his professional and personal time to the betterment of the medical profession,
(See Interim Session, Page 95)

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

THE AMA APPEALED THE FTC RULING that restricts the ability of medical societies to discipline members who overcharge their patients or who engage in false and deceptive advertising. The petition, filed December 3, asks the U.S. Court of Appeals in New York to review the Federal Trade Commission's ruling that the AMA *Principles of Medical Ethics* unlawfully restrict price advertising by physicians. It also appeals the FTC order directing the AMA to remove all anti-competitive advertising provisions from the *Principles* and to dispatch to all members a notice of its action. The FTC action disregards the AMA's good faith efforts to comply with evolving legal and social standards and is "contrary to law and sound policy," the AMA petition states.

THE U.S. ACHIEVED notable health improvements in the 1970s, HEW said in its annual report to Congress. The report shows a large decrease in the death rate in the past decade for males and females in all age groups. The rate of death from heart disease declined 17%. The infant mortality rate dropped from 20 per 1,000 to 14.1. Life expectancy at birth increased 2.3 years, from 70.9 to 73.2 years. The report also states that low-income families had higher rates of physician visits than families earning \$25,000 or more, and that minority groups still trailed in many health categories.

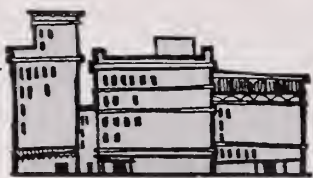
THE AMA EDUCATION and Research Foundation awarded \$30,000 to the American Association of Medical Assistants for use in educational and accreditation programs. A grant of \$20,000 was made to the University of Washington for a metabolic research program.

THE 1980 CONTINUING MEDICAL Education Catalog will be distributed to all AMA members this month. The catalog lists clinical programs developed by the AMA Council on Continuing Physician Education, as well as other AMA programs on the business side of medicine. Additional copies are available from the Division of Continuing Medical Studies, AMA Headquarters.

A FEDERAL REPORT ON TECHNOLOGY is an affront to the nation's democratic institutions and makes "improper conclusions on the activities of the scientific community," the AMA told the National Institutes of Health. The report calls for establishment of an advisory commission to evaluate and anticipate the probable effects of research and technological advances. The AMA noted that the cooperation now existing between publicly and privately sponsored scientists and physicians has led to breakthroughs enabling the American patient to receive the most advanced medical care possible, adding: "To recommend review by some central authority suggests that our existing social, political and educational institutions have failed. We reject such a suggestion and we reject the idea that a small, elite body can effectively reflect the concerns of society as a whole."

THE AMA'S GUIDELINES FOR PHYSICIANS governing confidentiality of computerized patient information were published as a supplementary report to the current issue of *Computers and Medicine*, a bimonthly newsletter highlighting innovative uses of computer technology in health care applications. To obtain the guidelines and/or the newsletter, contact the Department of Applied Medical Systems, AMA Headquarters.

IN HIS PRESIDENTIAL ADDRESS at the AMA Interim Meeting, Hoyt D. Gardner, M.D., urged physicians to "do more to show and tell the public how we care." Calling for a "human and social commitment from each physician," Dr. Gardner said, "Each of us must see himself or herself as the prime communicator of our profession in the one-to-one relationship with patients." He also stressed the need for physician cooperation in "good works" with the AMA Auxiliary and for greater community activity. "Voluntary local initiative or involvement has to be forthcoming for needs as diverse as health care planning, environmental safety, discipline within our profession, and containment of health care costs," he said.



NEWS

From the Medical Schools

ST. LOUIS UNIVERSITY

In recognition of his many contributions toward the founding of Cardinal Glennon Memorial Hospital for Children, *Peter G. Danis*, M.D., former



Dr. Danis

chairman of pediatrics, was honored by the naming of the hospital's Danis Auditorium. He also was given the title of chairman and clinical professor emeritus of the Department of Pediatrics by *David R. Challoner*, dean of the School of Medicine.

Dr. Danis's dream of building the first Catholic children's hospital came from a discussion with Cardinal John Glennon in 1946 shortly before his death.

Dr. Danis pursued the idea by gathering the support of other hospitals and physicians including the Sisters of Saint Mary and the hospital's Board of Governors. He assisted in the formation of Glennon's philosophy, structure, affiliations and location. After the hospital was completed in 1956, Dr. Danis was named chief of staff and medical director until the positions could be filled permanently.

Currently, Dr. Danis serves on the hospital's medical staff and has a private pediatrics practice.

Maurice Green, Ph.D., director of the Institute of Molecular Virology at the Medical Center, has received a two-year extension of \$150,064 from the National Cancer Institute in order to continue to study mammalian sarcoma viruses in an attempt to understand the molecular basis of cell transformation.

The goals of Dr. Green's project, "Replication of RNA Tumor Viruses," are to identify special proteins in the sarcoma viruses and to identify special cell-coded transformation-associated polypeptides that contribute to the transformed cells' genetic composition.

Prior support on this subject had been for three years in the amount of \$279,487.

Claudette Klein, Ph.D., assistant professor of biochemistry, has received the first year's funding of a three-year, \$124,199 grant from the General Medical Sciences of the National Institutes of Health to continue her investigation into how cells interact. First year funding is \$40,712.

The fundamental problems to be investigated concern how progenitor, "parent" cells become committed to differentiate into specific cell types and establish linkages basic to the development of a multicellular organism. To lay the groundwork for understanding how cells interact, Dr. Klein has chosen to study the slime mold amebae, *Dictyostelium Discoideum*, as a model system using biochemical and genetical techniques.

One of Dr. Klein's aims is to understand how cells process sensory information into a locomotory or moving response leading to intercellular contacts by studying the outer membrane of these cells. Her project is titled "Processing of the Chemotactic Signal of the *Dictyostelium Discoideum*."

UNIVERSITY OF MISSOURI-KANSAS CITY

Dean *Harry S. Jonas* has announced that *Dr. Thomas Nicholas* has accepted the chairmanship of the new Community and Family Medicine Department at Truman Medical Center, the major teaching hospital of the School of Medicine. He will assume those duties on March 1, 1980. Dr. Nicholas, who presently is Director of Medical Education with the American Academy of Family Practice, formerly was professor and chairman of the Department of Family Practice at Texas Tech University School of Medicine in Lubbock.

The site for the fifth annual student/faculty study tour for August, 1980 will be Central Europe. The itinerary includes visits to Austria, Hungary, Czechoslovakia and Germany with an emphasis on health care delivery systems and medical education.

In past years, students and faculty have traveled to China, the Navajo Nation, Israel and Canada. These trips are funded solely by students' money-raising projects and generous donations by individuals in Missouri.

Dr. Stephen C. Hamburger, docent and assistant professor of medicine, has been named project director of the Western Missouri Area Health Education Center effective Jan. 16. *Dr. Richardson K. Noback*, professor and former dean of the School of Medicine, has served in this capacity during the last year. Dr. Noback will assume new duties within the Department of Medicine at Truman Medical Center as well as maintain his responsibilities as senior docent in the School.

Dr. Hamburger joined the faculty in 1977 and is medical director of Truman Medical Center-East; vice-chairman, Department of Medicine, Truman Medical Center; and chairman of the Faculty Council, School of Medicine.

UNIVERSITY OF MISSOURI-COLUMBIA

Three new programs at the University of Missouri-Columbia will contribute to solving the need for physicians with geriatric training. Federal funds pledged to support improvements in health care for the elderly will finance the projects.

A \$100,000 planning grant presented jointly to the medical schools in Columbia (UMC) and Kansas City (UMKC) for a long-term care gerontology center is the most substantial grant received. Working together, UMC and UMKC grant directors have until July 1 to submit plans for a multidisciplinary training and research center for the elderly. The University of Missouri is in competition with 21 other universities who received similar planning grants for such centers.

The universities that submit the best plans will receive three more years of funding to establish centers that will serve ten HEW regions across the United States. *Dr. Stan Ingman*, associate professor of family and community medicine, will direct the planning phase at Columbia.

As part of the planning phase, four demonstration sites will be evaluated according to how they could best be used in geriatric training. Two are at UMC and two are at UMKC. The UMC sites are the Truman Memorial Veterans Medical Center and multi-sites in Callaway County.

Another program, a three-year grant providing postdoctoral fellowships in aging and mental health, was approved on Sept. 1, 1979. The grant is being administered by the UMC Department of Family and Community Medicine. Previously, the fellowships were supervised by the Center for Aging Studies in Columbia. This year, the base has been shifted to a clinical environment. Four

fellows are currently working at UMC and one is at UMKC.

Co-directors of the project are *Dr. Ingman*, *Dr. Arthur Robins*, professor of psychiatry; *Robert Habenstein*, professor of sociology (all from UMC); and *Warren Peterson*, professor of sociology at UMKC.

In addition, a curriculum and development grant for \$233,000 was awarded on Oct. 1, 1979 to the University of Missouri-Columbia to develop an interdisciplinary approach to teaching clinical gerontology at the Medical Center.

Basic objectives of the program include increasing clinical knowledge and skills to develop positive attitudes in students toward geriatric practice.

Several schools and area health care facilities have agreed to cooperate with the program. From UMC, the School of Nursing, the School of Medicine and the College of Home Economics are participating. Also, the Visiting Nurses Association of Columbia and in Callaway County, the Riverview Nursing Home, the Callaway Family Medical Care Center and the Callaway County Memorial Hospital will participate.

Public support of eye research is saving the sight of thousands who once would have been blinded by common eye disorders.

This point was emphasized by *Dr. Robert P. Burns*, chairman of the Ophthalmology Department, in announcing receipt of a \$7,500 grant from Research to Prevent Blindness, Inc. to advance the study of eye diseases.

Dr. Jules Stein, musician and businessman as well as an ophthalmologist, is chairman of the granting organization that has channeled millions of dollars into research for the preservation of vision and restoration of sight.

Interim Session

(Continued from page 92)

sonal time to the work of organized medicine at the local, state and national levels for many years, and

WHEREAS, he shared his expertise and energy with his community as an alderman, president of the Chamber of Commerce and in other civic positions, and

WHEREAS, he continued his private practice in a manner exemplifying the finest traditions of medicine in service to his patients, therefore be it

Resolved, that the House of Delegates of the Missouri State Medical Association expresses a deep sense of loss on the occasion of the death of Louis P. Hetlage, M.D., and be it further

Resolved, that the sympathy of this House be transmitted to his family.

(This resolution was approved unanimously.)

NEXT INTERIM SESSION

It was voted by the House of Delegates to hold the 1980 Interim Session on November 1-2, 1980 in Joplin.

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

- Feb. 23-
Mar. 1 Late-Winter Traveling Medical Education Course. Kansas City Southwest Clinical Society
(Maui, Hawaii)
- Mar. 27-29 Perspectives in Medicine
(Crown Center Hotel)
- Apr. 10-12 Update in Obstetrics and Gynecology
(Crown Center Hotel)
- May 2-3 The Long Weekend: Office Clinical Care
(UMKC School of Medicine)
- May 15-16 Surgical Problems, Old and New
(Alameda Plaza Hotel)
- June 5-6 Symposium on Physical Fitness
(Crown Center Hotel)

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673
Contact: Office of CME

- Feb. 28-29 MKSAP V
- Mar. 3-
May 19 Internal Medicine Review
Monday evenings, 7-10 PM
Jewish Hospital
- Mar. 20-21 Rheumatology Conference
- Mar. 27-28 Current Concepts in Cerebrovascular Surgery
- Apr. 10-11 Seventh Annual OB-GYN Symposium
- Apr. 25-26 Eye Alumni Meeting
- May 3-11 Second Annual Current Concepts in Musculoskeletal Radiology and Orthopedics Meeting
- May 9-10 Orthopedic Radiology
- May 15-16 Neuromuscular Diseases

Ellis Fischel State Cancer Hospital
and Cancer Research Center
115 Business Loop 70 West, Columbia 65201
(314) 449-2711
Contact: Eugene Bricker, M.D.

- May 3 Carcinoma of the Breast

The Edward Mallinckrodt Institute of Radiology —
Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
Contact: Ronald G. Evens, M.D., Director

City-Wide Radiology Conference

- Mar. 10 CT of the Thorax-Updated
- May 12 Parenchymal Liver Disease — Evaluation With Computed Tomography

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000

- Every Wed.
& Fri. 3:00 PM — Basic Sciences to Surgery Seminar
4:00 PM — Surgical Rounds

Contact: Erich W. Pollak, M.D., Director of Surgical Education

First & Third

- Saturdays 9:00 AM — Surgical Techniques Seminar
9:45 AM — Morbidity and Mortality Conference
10:30 AM — Surgical Grand Rounds
- Every Tues. 9:00 AM Medicine Staff Conference
(Except second Tuesday of each month)

Contact: David S. Sneed, M.D., Director of Medical Education

Missouri Baptist Eye Foundation
621 S. New Ballas Rd., Suite 343
St. Louis 63141

- May 5-7 Eye Seminars — Contact Lenses and Intraocular Implants

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

- Apr. 2 Present Status of Antibiotic Therapy
- June 4 Chronic Obstructive Pulmonary Disease
- Aug. 6 Rheumatic Heart Disease

University of Missouri School of Medicine
Office of Continuing Education
M-233 Medical Center, Columbia 65212
(314) 882-2256
Contact: William D. Bradshaw, M.D.

Feb. 28-29 Nutritional Update
Mar. 4 Preceptor's Day
Mar. 5-6 Family Practice Update
Mar. 12-13 Medicine and Religion
Mar. 20-21 Spring Surgery Conference
Mar. 31-
Apr. 1 26th Annual Urology Seminar
(Crown Center, Kansas City)
Apr. 9-10 Primary Pediatrics for the Primary
Physician
April 11-12 Special Procedures in Respiratory
Therapy
Apr. 18-20 Group Relations
May 9-11 Third Annual Missouri Cardiovascular
Conference
(Tan-Tar-A, Osage Beach)

June 2-3 Sixth International Symposium on In-
testinal Microecology
Aug. 10-11 Third Annual Workshop in Soft Tissue
Surgery

De Paul Community Health Center
12303 DePaul Dr., Bridgeton 63144
(314) 344-6262
Contact: Medical Director's Office

Mar. 5 Pulmonary Update

Greater Kansas City Radiological Society
Contact: Raymond W. Hartwig, M.D., Dept. of Radiol-
ogy, Trinity Lutheran Hospital, Kansas City

Mar. 12 Abdominal C. T.
(Dinner Meeting, Alameda Plaza Hotel)
4 PM Lecture
(St. Luke's Hospital)

Apr. 16 Bone Roentgenology
(Dinner Meeting, Alameda Plaza Hotel)
4 PM Lecture
(University of Kansas Medical Center)

To the states, or anyone of them, or any city of the States,
Resist much, obey little;
Once unquestioning obedience, once fully enslaved,
No nation, state, city, of this earth, ever afterward
Resumes its liberty.

WALT WHITMAN
"Caution" — 1860

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Use this coupon for your TAX-DEDUCTIBLE CONTRIBUTION to the
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Make Checks Payable to Missouri State Medical Foundation.

The Missouri State Medical Foundation is classified by the Internal Revenue Service under Section
509(a)(3). Individuals may deduct up to 50% of their adjusted gross income for contributions made
to the MSMF.

New Members

Yousef K. Abu-Osba, M.D., 500 S. Kings-highway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Abu-Osba is a native of Palestine, received his preliminary education at Assyout University and his M.D. degree at Cairo University in 1968. He specializes in pediatrics.

Jerrold R. Albom, M.D., 216 Research Medical Office Building, 6400 Prospect, Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Albom is a native of New Haven, Conn., received his preliminary education at Columbia College and his M.D. degree at Albert Einstein College of Medicine in 1974. He specializes in radiology.

Larry D. Bowler, M.D., 1849-B South 31st, Kansas City, Kan. 66106, has become a member of Jackson County Medical Society. Dr. Bowler is a native of Boley, Okla., received his preliminary education at Oklahoma State University and his M.D. degree at the University of Kansas in 1978. He specializes in internal medicine.

Charles R. Braun, M.D., 2531 Cherry, 3N, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Braun is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1977. He specializes in internal medicine.

Garrett C. Burris, M.D., 11745 Olive, St. Louis 63103, has become a member of St. Louis Metropolitan Medical Society. Dr. Burris is a native of Lafayette, La., received his preliminary education at Louisiana State University and his M.D. degree at Louisiana State University in 1968. He specializes in pediatric neurology.

Edmond B. Cabbabe, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Cabbabe is a native of Aleppo, Syria, received his preliminary education at Damascus University and his M.D. degree at Damascus University in 1967. He specializes in plastic and reconstructive surgery.

Carmelito M. Caronongan, M.D., 6150 Oakland Ave., St. Louis 63139, has become a member of St. Louis Metropolitan Medical Society. Dr.

Caronongan is a native of the Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1965. He specializes in surgery.

James S. Carter, M.D., 401 Keene, Columbia 65201, has become a member of Boone County Medical Society. Dr. Carter is a native of Lawrence, Kan., received his preliminary education at Ottawa University and his M.D. degree at the University of Kansas in 1970. He specializes in cardiovascular and thoracic surgery.

Shane R. Christensen, M.D., 5011 Wyandotte-2 South, Kansas City 64112, has become a member of Jackson County Medical Society. Dr. Christensen is a native of Oklahoma City, Okla., received his preliminary education at the University of Kansas and his M.D. degree at the University of Missouri-Kansas City in 1979. He specializes in internal medicine.

Daniel M. Cline, M.D., 3318 Gillham Rd., Kansas City 64109, has become a member of Jackson County Medical Society. Dr. Cline is a native of Kansas City, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1978. He specializes in internal medicine.

Babu R. Dandamudi, M.D., 5400 Arsenal, St. Louis 63163, has become a member of St. Louis Metropolitan Medical Society. Dr. Dandamudi is a native of India and received his M.D. degree at Guntur Medical College in 1970. He specializes in family practice.

Garrett A. Hagen, M.D., 1035 Bellevue, St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Hagen is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1957. He specializes in internal medicine.

Stephen C. Hamburger, M.D., University of Missouri-Kansas City School of Medicine, 2411 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Hamburger is a native of Atlantic City, N. J., received his preliminary education at the University of Connecticut and his M.D. degree at the University of Connecticut in 1972. He specializes in internal medicine and endocrinology.

(Continued on page 100)



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Pale green 300 mg. tablets
in bottles of 100 and Single Unit Packages of 100
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Injection, 300 mg./2 ml.,
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**When painful spasm
is the presenting
symptom...**



...in the functional bowel/irritable bowel syndrome*

Bentyl[®]

(dicyclomine hydrochloride USP)

10 mg. capsules, 20 mg. tablets,
10 mg./5 ml. syrup, 10 mg./ml. injection

helps control abnormal motor activity
with minimal anticholinergic side effects[†]

Demonstrated smooth muscle relaxant activity.

In this double-blind study, twenty patients having G.I. series and exhibiting spasm were randomly selected to receive either 2 cc. of Bentyl or sodium chloride intramuscularly. Ten minutes after the injection another radiograph was taken . . .

. . . Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.



Pylorospasm has almost totally blocked passage of barium meal.



Barium meal beginning to pass 10 minutes after intramuscular injection of 20 mg. Bentyl.

"The correlation of spasm relief and drug given was excellent."

*This drug has been classified "probably" effective in treating functional bowel/irritable bowel syndrome.

†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference:

King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

Merrell

Bentyl[®]

(dicyclomine hydrochloride USP)

Capsules, Tablets, Syrup, Injection

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS

Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the following indications as "probably" effective:

For the treatment of functional bowel/irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS.

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis. **WARNINGS:** In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. **PRECAUTIONS:** Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon. Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension. Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. **ADVERSE REACTIONS:** Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; cycloplegia, increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation. **DOSEAGE AND ADMINISTRATION:** Dosage must be adjusted to individual patient's needs.

Usual Dosage: Bentyl 10 mg capsule and syrup: Adults: 1 or 2 capsules or teaspoonfuls syrup three or four times daily. Children: 1 capsule or teaspoonful syrup three or four times daily. Infants: ½ teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.) Bentyl 20 mg: Adults: 1 tablet three or four times daily. Bentyl Injection: Adults: 2 ml (20 mg) every four to six hours intramuscularly only. **NOT FOR INTRAVENOUS USE.** **MANAGEMENT OF OVERDOSE:** The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine[®] (bethanechol chloride USP) should be used.

Product Information as of October, 1978

Injectable dosage forms manufactured by CONNAUGHT LABORATORIES, INC., Swiftwater, Pennsylvania 18370 or TAYLOR PHARMACAL COMPANY, Ocatator, Illinois 62525 for MERRELL-NATIONAL LABORATORIES, Division of Richardson-Merrell Inc., Cincinnati, Ohio 45215, U.S.A.

New Members

(Continued from page 98)

Bruce H. Hamory, M.D., N406 Medical Center, Columbia 65202, has become a member of Boone County Medical Society. Dr. Hamory is a native of Lancaster, Pa., received his preliminary education at the University of Tennessee and his M.D. degree at Baylor College in 1971. He specializes in internal medicine and infectious diseases.

Brian E. Healy, M.D., 426 Carondelet Medical Bldg., 1010 Carondelet Dr., Kansas City 64114, has become a member of Jackson County Medical Society. Dr. Healy is a native of Detroit, Mich., received his preliminary education at the University of Michigan and his M.D. degree at the University of Michigan in 1974. He specializes in orthopaedic surgery.

William F. Hoffman, M.D., 12255 DePaul Dr., Suite 830, Bridgeton 63044, has become a member of St. Louis Metropolitan Medical Society. Dr. Hoffman is a native of Chicago, Ill., received his preliminary education at Drake University and his M.D. degree at St. Louis University in 1972. He specializes in neurosurgery.

Walter G. Holloman, M.D., 11155 Dunn Rd., Suite 203, St. Louis 63136, has become a member of St. Louis Metropolitan Medical Society. Dr. Holloman is a native of Hattiesburg, Miss., received his preliminary education at Rice University and his M.D. degree at the University of Texas in 1972. He specializes in diagnostic and neuroradiology.

Edward J. Hoy, M.D., 3655 Vista, St. Louis 63122, has become a member of St. Louis Metropolitan Medical Society. Dr. Hoy is a native of Lombard, Ill., received his preliminary education at Loyola University and his M.D. degree at St. Louis University in 1977. He specializes in ophthalmology.

Dorothy Jackson, M.D., 11722 Smalley, Kansas City 64134, has become a member of Jackson County Medical Society. Dr. Jackson is a native of Greenwood, Miss., received her preliminary education at the University of Missouri-Kansas City and her M.D. degree at the University of Missouri-Kansas City in 1979. She specializes in internal medicine.

Bernard O. Judy, M.D., 310 Carondelet Medical Bldg., 1010 Carondelet Dr., Kansas City 64114, has become a member of Jackson County

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Medical Society. Dr. Judy is a native of Atlanta, Ga., received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Columbia in 1976. He specializes in internal medicine.

William D. Keniston, III, M.D., 3941 Willow, Apt. 103, Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Keniston is a native of St. Louis, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1978. He specializes in internal medicine.

Jerrold J. Lander, M.D., Suite 503, 5505 Delmar, St. Louis 63112, has become a member of St. Louis Metropolitan Medical Society. Dr. Lander is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1968. He specializes in internal medicine and gastroenterology.

Maria M. Legarda, M.D., 751 E. 63rd, P.O. Box 7252, Kansas City 64113, has become a member of Jackson County Medical Society. Dr. Legarda is a native of the Philippines, received her preliminary education at the University of Santo Tomas and her M.D. degree at the University of Santo Tomas in 1970. She specializes in neurology.

Alfredo J. Llinas, M.D., 6150 Oakland Ave., St. Louis 63130, has become a member of St. Louis Metropolitan Medical Society. Dr. Llinas is a native of Colombia, South America, received his preliminary education at National University of Colombia and his M.D. degree at the National University of Colombia in 1971. He specializes in general surgery.

Luke W. Lucas, M.D., 803 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Lucas is a native of Milltown, S. D., received his preliminary education at the University of Colorado and his M.D. degree at the University of Colorado in 1971. He specializes in psychiatry.

Verachai Lunagjamekorn, M.D., 412 Ward, Caruthersville 63830, has become a member of Pemiscot County Medical Society. Dr. Lunagjamekorn is a native of Thailand, received his preliminary education at Chiangmai University and his M.D. degree at Chiangmai Medical School in 1967. He specializes in obstetrics and gynecology.

Nicholas D. Mamalis, M.D., 1601 Clubhouse Dr. N.E., Apt. 201, Kansas City 64116, has become a member of Jackson County Medical Society. Dr. Mamalis is a native of Knoxville, Tenn., received his preliminary education at Springhill College and his M.D. degree at Emory University in 1977. He specializes in internal medicine.

Poyanil M. Mathew, M.D., 5400 Arsenal, St. Louis 63139, has become a member of St. Louis Metropolitan Medical Society. Dr. Mathew is a native of India, received his preliminary education at Government Arts College and his M.D. degree at Andhra Medical College in 1954. He specializes in psychiatry.

Marcus D. McCorcle, M.D., 615 S. New Ballas Rd., Creve Coeur 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. McCorcle is a native of Bassett, Neb., received his preliminary education at Evangel College and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in obstetrics and gynecology.

Nancy R. Mikkelsen, M.D., 3905 N.E. 59th, Kansas City 64119, has become a member of Jackson County Medical Society. Dr. Mikkelsen is a native of Louisville, Ky., received her preliminary education at the University of Missouri-Kansas City and her M.D. degree at the University of Missouri-Kansas City in 1978. She specializes in internal medicine.

John J. Morris, M.D., Mid-Mo Mental Health Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Morris is a native of Jefferson City, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1978. He specializes in general practice.

Richard C. Muckerman, II, M.D., 409 Mission Ct., St. Louis 63130, has become a member of St. Louis Metropolitan Medical Society. Dr. Muckerman is a native of St. Louis, received his preliminary education at Georgetown University and his M.D. degree at Georgetown University in 1977. He specializes in obstetrics and gynecology.

Christopher J. Mullen, M.D., Apt. 2055, 6563 W. Foxridge, Shawnee Mission, Kan. 66202, has become a member of Jackson County Medical Society. Dr. Mullen is a native of Cambridge, Mass., received his preliminary education at the University of Texas and his M.D. degree at the

University of Texas in 1977. He specializes in internal medicine.

Charles P. Pattison, M.D., 540 Penn Park, 2929 Baltimore, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Pattison is a native of Kansas City, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Kansas in 1970. He specializes in internal medicine.

Robert J. Perez, M.D., 10928 Ridge Forest Dr., St. Louis 63123, has become a member of St. Louis Metropolitan Medical Society. Dr. Perez is a native of Cuba, received his preliminary education at St. Louis University and his M.D. degree at the Universidad Autonoma de Guadalajara in 1976. He specializes in internal medicine.

Joseph L. Portnoy, M.D., 14377 Woodlake Dr., Chesterfield 63017, has become a new member of St. Louis Metropolitan Medical Society. Dr. Portnoy is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Kansas in 1974. He specializes in pediatrics.

Craig T. Pratt, M.D., 305 Country Lane, Lee's Summit 64063, has become a member of Jackson County Medical Society. Dr. Pratt is a native of Missouri, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1979. He specializes in internal medicine.

Allison E. Purtell, M.D., 3736 Locust, Kansas City 64109, has become a member of Jackson County Medical Society. Dr. Purtell is a native of St. Paul, Minn., received her preliminary education at the University of Minnesota and her M.D. degree at the University of Minnesota in 1978. She specializes in internal medicine.

Sreejaya A. Reddy, M.D., 4526 Pennsylvania, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Reddy is a native of India. She received her M.D. degree at Gandhi Medical College in 1974. She specializes in internal medicine.

Betty F. Scarborough, M.D., 6104 N.W. 70th, Apt. 308, Kansas City 64151, has become a member of Jackson County Medical Society. Dr. Scarborough is a native of St. Louis, received her preliminary education at the University of

Missouri-Kansas City and her M.D. degree at the University of Missouri-Kansas City in 1979. She specializes in internal medicine.

Mark R. Scarborough, M.D., 6104 N.W. 70th, Kansas City 64151, has become a member of Jackson County Medical Society. Dr. Scarborough is a native of Kansas City, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1979. He specializes in internal medicine.

Lowell D. Schoengarth, M.D., Professional Building, Columbia 65201, has become a member of Boone County Medical Society. Dr. Schoengarth is a native of Wisconsin and received his M.D. degree at the University of Michigan in 1978. He specializes in ophthalmology.

Gerald S. Shatz, M.D., 522 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Shatz is a native of St. Louis, received his preliminary education at Northwestern University and his M.D. degree at Washington University in 1974. He specializes in allergy and immunology.

Paul J. Sheehan, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Sheehan is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at St. Louis University in 1979. He specializes in general surgery.

Charles D. Short, M.D., 3015 N. Ballas Rd., St. Louis 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Short is a native of Evanston, Ill., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1968. He specializes in pathology.

Reid C. Smith, M.D., 210½ E. 40th, Apt. 18, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Smith is a native of Wichita, Kan., received his preliminary education at Wichita State University and his M.D. degree at the University of Kansas in 1978. He specializes in internal medicine.

Carol A. Stanford, M.D., 4936 Walnut, Kansas City 64112, has become a member of Jackson County Medical Society. Dr. Stanford is a native of Decatur, Ill., received her preliminary educa-

tion at the University of Missouri-Kansas City and her M.D. degree at the University of Missouri-Kansas City in 1979. She specializes in internal medicine.

Ettayapuram V. Sunderrajan, M.D., V.A. Hospital, Room 408, Columbia 65201, has become a member of Boone County Medical Society. Dr. Sunderrajan is a native of India, received his preliminary education at Osmania University and his M.D. degree at Osmania University in 1969. He specializes in pulmonary diseases.

Wayne A. Taulbee, M.D., 3660 Vista Blvd., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Taulbee is a native of Portland, Me., received his preliminary education at Colgate University and his M.D. degree at St. Louis University in 1977. He specializes in ophthalmology.

Charles H. Tegler, M.D., 2933 Baltimore, Apt. 602, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Tegler is a native of Wichita, Kan., received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1979. He specializes in internal medicine.

Alexis G. Thomas, M.D., 3216 E. 30th, Kansas City 64128, has become a member of Jackson County Medical Society. Dr. Thomas is a native of Kansas City, received his preliminary education at Howard University and his M.D. degree at Meharry Medical College in 1977. He specializes in internal medicine.

Neil G. Trachtman, M.D., 303 E. Ramsey, Buffalo 68622, has become a member of Dallas-Hickory-Polk-Dade County Medical Society. Dr. Trachtman is a native of Brooklyn, N. Y., received his preliminary education at the State University of New York and his M.D. degree at the State University of New York-Stony Brook in 1973. He specializes in general practice and emergency medicine.

Mohammad Mithal Vakassi, M.D., 4585 Washington, Florissant 63033, has become a member of St. Louis Metropolitan Medical Society. Dr. Vakassi is a native of Pakistan, received his preliminary education at Government College and his M.D. degree at Liaquat Medical College in 1967. He specializes in internal medicine.

Peter A. Valen, M.D., 4119 Roanoke Rd., Apt. 24, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Valen is a native of Mountain Lake, Minn., received his preliminary education at St. Olaf College and his M.D. degree at the University of Minnesota in 1978. He specializes in internal medicine.

Michael W. Vannier, M.D., 510 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Vannier is a native of Hamilton, Calif., received his preliminary education at the University of Kentucky and his M.D. degree at the University of Kentucky in 1976. He specializes in radiology.

Ammon L. VerDught, M.D., 15022 E. 33rd, Independence 64055, has become a member of Jackson County Medical Society. Dr. VerDught is a native of Des Moines, Iowa, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1977. He specializes in internal medicine.

David L. Voshall, M.D., 14600 E. 35th, Independence 64055, has become a member of Jackson County Medical Society. Dr. Voshall is a native of Dover, Ohio, received his preliminary education at the University of Kansas and his M.D. degree at the University of Missouri-Kansas City in 1977. He specializes in internal medicine.

Darryl L. Wallace, M.D., Dept. of Medical Education, St. Luke's Hospital, 44th and Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Wallace is a native of Louisville, Ky., received his preliminary education at Kansas University and his M.D. degree at Northwestern University in 1969. He specializes in obstetrics and gynecology.

Michael L. Weaver, M.D., 4505 Headwood #1, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Weaver is a native of Kansas City, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1977. He specializes in internal medicine.

Donna Lynn Weise, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Weise is a native of St. Louis, received her preliminary education at St. Louis University and her M.D.

degree at St. Louis University in 1978. She specializes in pathology.

Colin James Wells, M.D., 3937 Randall Dr., Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Wells is a native of Santa Monica, Calif., received his preliminary education at the University of California and his M.D. degree at Creighton University in 1976. He specializes in emergency medicine.

Rudolph E. Willis, M.D., 1505 Citadel Dr., Apt. 52, Kansas City 64110, has become a

member of Jackson County Medical Society. Dr. Willis is a native of Chicago, Ill., received his preliminary education at Northwestern University and his M.D. degree at Washington University in 1977. He specializes in internal medicine.

Vernon L. Young, M.D., 4960 Audubon, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Young is a native of Onida, Ky., received his preliminary education at the University of Kentucky and his M.D. degree at the University of Kentucky in 1970. He specializes in plastic surgery.

In Memoriam

Roderick D. Streeter, M.D., 245 Union Blvd., St. Louis 63108; a graduate of St. Louis University, 1910; member of Chariton-Macon-Monroe-Randolph County Medical Society; age 97; died Nov. 24, 1979.

Edmund R. Sheridan, M.D., 1755 S. Grand Ave., St. Louis 63104; a graduate of St. Louis University, 1934; member of St. Louis Metropolitan Medical Society; age 79; died Dec. 1, 1979.

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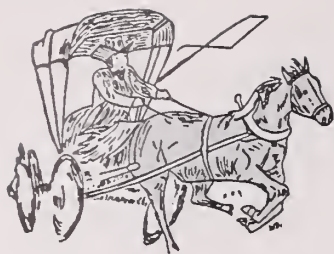
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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The first meeting of the Atchison-Gentry-Nodaway-Worth Counties Medical Society was held in Maryville on Dec. 4, 1939 with a dinner at the Hotel Linville. Elected as officers for 1940 are Dr. Clifton M. Waugh, Tarkio, president; Dr. Samuel E. Simpson, Stanberry, vice-president; and Dr. Charles D. Humberd, Barnard, secretary-treasurer.

Dr. Quitman U. Newell, St. Louis, was chosen as president-elect of the Southern Medical Association at the meeting in Memphis on Nov. 21-24, 1939. His presidency will follow that of Dr. Arthur T. McCormack of Louisville, Ky. who was installed during the Memphis session.

The Chariton County Medical Society met in Salisbury on November 28, 1939 with the Linn County Medical Society. Dr. W. D. West, Mendon, presided. The following officers were elected for 1940: Dr. Charles D. Stratton, Rothville, president; Dr. Andrew L. Lewis, Sumner, vice-president; and Dr. George W. Hawkins, Salisbury, secretary-treasurer.

Dr. Leo H. Pollock, Kansas City, is a charter member of the recently organized chapter of Phi Beta Kappa Alumni of Greater Kansas City.

TWENTY-FIVE YEARS AGO

Fellowship in the American College of Surgeons was conferred on four faculty members of the Washington University School of Medicine at the 40th Clinical Congress which met in Atlantic City. The four doctors honored were Harvey R. Butcher, Jr., C. Alan McAfee, Falls B. Hershey and Joseph C. Peden, Jr.

The following alumni of the St. Louis University School of Medicine were elected as officers of the St. Louis County Medical Society at the installation banquet held at Le Chateau on January 12: Dr. Louis F. Howe, president; Dr. James F. Dowd, vice-president; and Dr. George Wulff, secretary.

The American Medical Association will present

the first "Videclinic" over a closed circuit television network to 32 cities across the nation on February 19.

The South Central Medical Society met for dinner on December 22, 1954 at the Aztec Club, which is southeast of Willow Springs. Dr. M. B. Perkins, of Willow Springs, president, presided. The officers were elected for 1955. Dr. C. W. Cooper, Thayer, took over as president; Dr. J. W. Wiles, West Plains, was chosen as president-elect; and Dr. A. C. Ames, Mountain Grove, was reelected secretary-treasurer.

TEN YEARS AGO

The annual dinner and installation of officers of the Buchanan County Medical Society were held at the Moila Club in St. Joseph. Dr. John L. Mothershead, retiring president, served as installing officer and presided at the meeting. Officers to serve in 1970 are Drs. Owen W. D. Craig, president; Sharon E. Waggoner, president-elect; Lawrence H. Pifer, vice-president; E. F. Butler, secretary; and Robert W. Kieber, who began his 17th one-year term as treasurer.

The Grand River Medical Society held its annual Christmas Dinner meeting at the Chillicothe Country Club on Dec. 11, 1969. Honored guests were MSMA President Doyle C. McCraw and Mrs. McCraw; MSMA President-Elect Joseph L. Fisher and Mrs. Fisher; and First District Councilor John Martin and Mrs. Martin.

Ewing M. Kauffman, president of the Kansas City Royals baseball team, will be a speaker at the Friday luncheon during the 112th Annual Session of the MSMA which is scheduled for April 2-5, 1970 at the Muchlebach Hotel in Kansas City.

James C. Warren, M.D., Ph.D. of the University of Kansas will succeed Willard M. Allen, M.D. as professor and head of the Department of Obstetrics and Gynecology at Washington University School of Medicine. Dr. Allen, who is retiring, has held his present position since 1940 and is renowned for the discovery of progesterone.

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Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

ORAL. Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients, should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

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Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest, concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs.

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Withdrawal symptoms (similar to those with barbiturates, alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal/muscle cramps, vomiting, sweating). Keep addiction-prone individuals under careful surveillance because of predisposition to habituation/dependence. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence, can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), i.e., phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function, avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

INJECTABLE. Although promptly controlled, seizures may return, readminister if necessary, not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures, use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported, should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam) therapy and are of no known significance.

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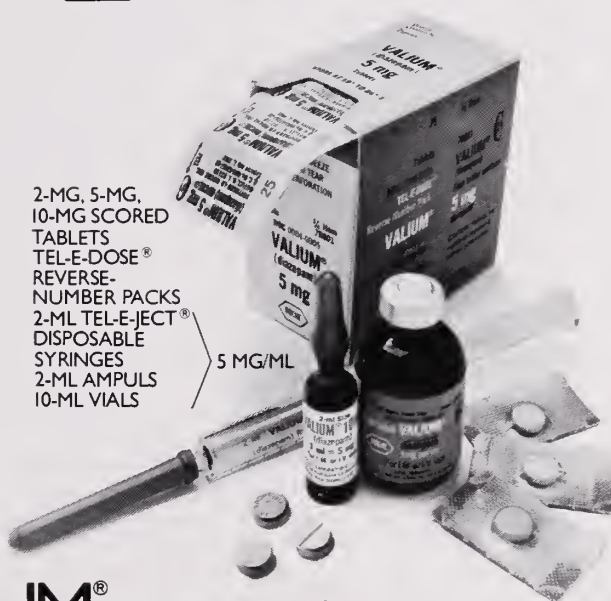
In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure, employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension, caffeine and sodium benzoate for CNS-depressive effects. Dialysis is of limited value.

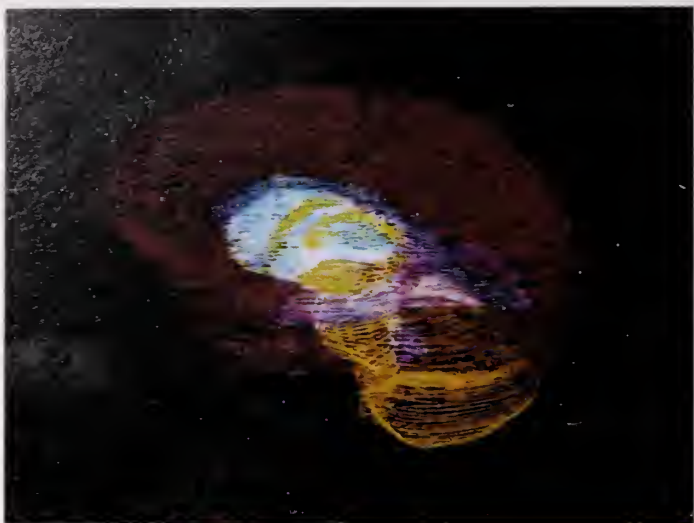
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Missouri Medicine

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March, 1980

Special Review Article

**Scoliosis
and
Kyphosis**

MDS

122nd
**ANNUAL
SESSION**
Program,
Delegates
and
Exhibitors

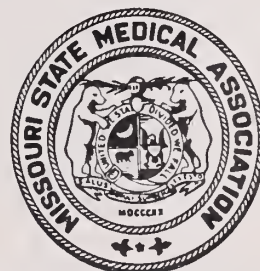
**MSMA
Auxiliary
Convention
Program
and
Benefit Auction**



**Replantation of
Completely
and Incompletely
Amputated
Hand Parts**

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APR 8 - 1980



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PATIENT CHART

NAME: LAST <i>Momedico</i>		FIRST <i>Missouri</i>	INITIAL <i>Medical Insurance Company</i>	BIRTHDATE <i>2/24/78</i>	AGE <i>2 yrs.</i>
ADDRESS: <i>100 N. Broadway</i>		STREET <i>Suite 1650</i>	CITY <i>St. Louis, Missouri</i>	STATE <i>63102</i>	ZIP <i>314/241-4774</i>
OCCUPATION: <i>Insuring nearly 1200 Missouri Physicians</i>		ASSETS: <i>\$5,026,399</i>		ANNUALIZED PREMIUMS <i>\$2,367,104</i>	
NEAREST RELATIVE (NAME, ADDRESS, TEL. NO. & RELATIONSHIP) <i>Missouri State Medical Association</i>					

BRIEF HISTORY: *A stock insurance company offering occurrence form, medical professional liability policies; founded by the Missouri State Medical Association*

PHYSICAL EXAM: *1. Physicians as owners, officers and directors; including physicians on an Underwriting/Claims Committee that reviews applications, classifications, claims and provides direction and assistance. 2. A close working relationship with MSMA and its component societies. 3. Professional staff assuring prompt, personal service. 4. Reinsurance with a prominent American insurance company providing protection from large losses.*

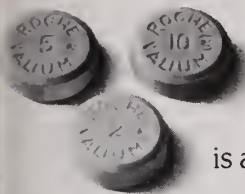
DIAGNOSIS: *Will continue to grow and insure more and more Missouri physicians. Will continue as an available market with reasonably priced protection responsive to needs of Missouri physicians. (See "Why a New Malpractice Crisis is Coming," Medical Economics—Oct. 29, 1979, and "Ways to Head Off a New Malpractice Crisis," Medical Economics—Jan. 7, 1980).*

TREATMENT: *1. Suspend the required purchase of MSMA Subordinated Notes to allow for certain recapitalization activities to go forward. 2. Maintain direct, daily participation in company decisions by insured physicians. 3. Maintain reasonable price based on Missouri loss experience. 4. Maintain credibility through continued full disclosure of all finances.*

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The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

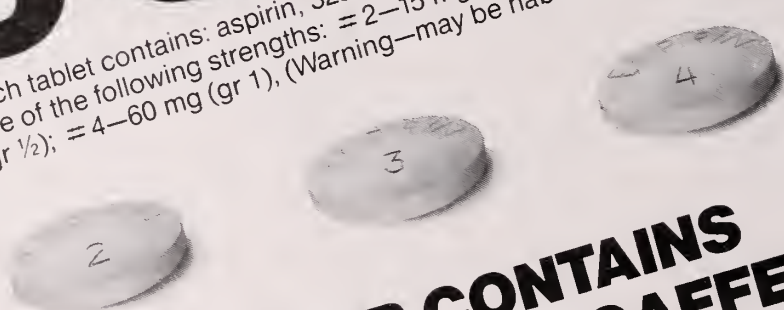
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References should be arranged at the end of the article in the order in which the references are cited in the text. The reference should give name of author, title of article, name of periodical, volume number, initial page number and year. Authors are responsible for reference accuracy.

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Photo-Comment by James W. Clawson, M.D., Springfield



See 'Aphorisms,' opposite page

Editor's Corner

APHORISMS

A retired physician was recently in the office. He announced that Congress was nearing a state of "critical mass."

I guess I looked surprised. "I am aware of critical mass as it applies to nuclear physics," I replied, "but this is far too logical to apply to our circus of Congressional clowns. How do you define it?"

"Congressional critical mass," he said, "is that unstable state reached when the number of foundations for individual liberty, sponsored by congressmen, begins to exceed the number of congressmen."

* * *

As a physician, you have two things to give your patients; medicine and compassion. Percentagewise, medicine is the least important. Human beings are surprisingly durable and resilient. Most of them will do nicely if we physicians don't "iatrogenize" too badly.

The older you become the more you will realize that therapeutic triumphs are due, at least in part, to genuine gentleness and concern. Even therapeutic defeats are softened by such gentleness and concern.

Many doctors, even chiropractors, will have thriving practices because of the personal rapport they establish with their patients.

And, in the ultimate art of healing, they are not all that bad.

* * *

Not long ago, I had an elderly widower in the office who was a veteran of WW I. He spent a most enjoyable month in the Hawaiian Islands. So enjoyable, in fact, that he managed an admission to the Veterans Administration Hospital there for a checkup and thus spent another month.

He returned, convinced that government medicine was the only way to go.

And, why shouldn't he?

* * *

Human nature must be improving. I have never received such a blizzard of letters from people expressing vital concern about my financial welfare. Invitations to subscribe to investment bulletins arrive daily. Frantic advice to avail myself of this and that tax shelter come each morning.

I believe I realize that many things in this country are in parlous state. However, it would help if half the guys sending these letters didn't contradict the other half.

I can flip a nickel and do that well.

* * *

There are those who keep proposing that we should build additional medical schools, enlarge classes in existing medical schools and, thus, graduate more and more doctors. This, they say, will miraculously solve all the problems of health care.

Those people have not done their homework. They need look no further than at the program of the last ten years which resulted in a glut of lawyers in America.

Never have we had so many attorneys . . . and so little justice.

* * *

Robert Browning, "Grow old along with me, the best is yet to be," and Walter Boughton Pitkin, "Life Begins at Forty," were idiots.

Wigbert E. Washburn

Royals-Boston Tickets Among Donations for Benefit Auction

Would you and three guests enjoy watching the K.C. Royals-Boston game on May 4 from team-owner Ewing Kauffman's box right behind the dugout?

You can bid for this unusual opportunity if you attend the MSMA Auxiliary's second annual AMA-ERF/MSMF Benefit Auction at 6:30 PM on Thursday, April 17 in the Centennial-B Room at Crown Center Hotel in Kansas City.

The above Royals-Boston ticket donation from Mr. Kauffman and Marion Laboratories is just one of the many unusual and valuable items that have been donated as this year's auction fare for bidders. Among others are an antique shotgun, hand-embroidered quilts (one king size), two cases of German wine, original paintings, beautiful crystal stemware, a country ham plus numerous antiques (maple rocker, lamp) and hard-to-find collectors' items.

Professional Auctioneers

Mr. Eddie Pickett of Stewartsville and Mr. Phillip Farrell of St. Joseph will be on hand to offer items to the bidders. Both are professional auctioneers. The Auxiliary also plans to feature other "big name" personalities at the event.

Mrs. Rudy Ruhling, president, said the Auxiliary is striving to exceed the approximately \$8,000 proceeds earned at last year's event. "We will need the cooperation, donations and enthusiastic attendance of all Association and Auxiliary members at the Annual Session to succeed, but we intend to do it. This is a wonderful way to make our donations to these two important funds to help medical students."

The Auxiliary is again asking members for donations. All are encouraged to use their own ingenuity in selecting their items.

Members who are donating items are asked to pre-register them now with Mrs. Donald C. Sanders (200 Avila Circle, Kansas City 64114) or Mrs. Gary Dyer (802 North 25th, St. Joseph 64506).

Items will be received from 10 AM to 3 PM in the Independence Room on April 17. Please attach a description of your item for the auctioneer.

Refreshments will be available. The Auxiliary is asking for a \$1 attendance donation at the door.

Tenuate®

(diethylpropion hydrochloride NF)

Tenuate Dospan®

(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, hypertensive crises may result.

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychological dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache, rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions have been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride) One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phenitamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

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References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon (Oillon) R.H., and Leyland, H.M. A comprehensive review of diethylpropion hydrochloride. In: *Central Mechanisms of Anorectic Drugs*, S. Garattini and R. Samanin, Ed. New York, Raven Press, 1978, pp. 391-404.

Merrell

**Overweight may not always be simple...
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Complicated or not...**

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A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict appetite control and a successful program of weight reduction may tend to diminish the incidence or severity of the complications in some patients. Diethylpropion hydrochloride has been reported useful in such patients and while it is not suggested that Tenuate itself in any way reduces the complications of overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. **Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.**

In uncomplicated overweight.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

**Tenuate—it makes sense.
And it's responsible medicine.**

*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

Merrell

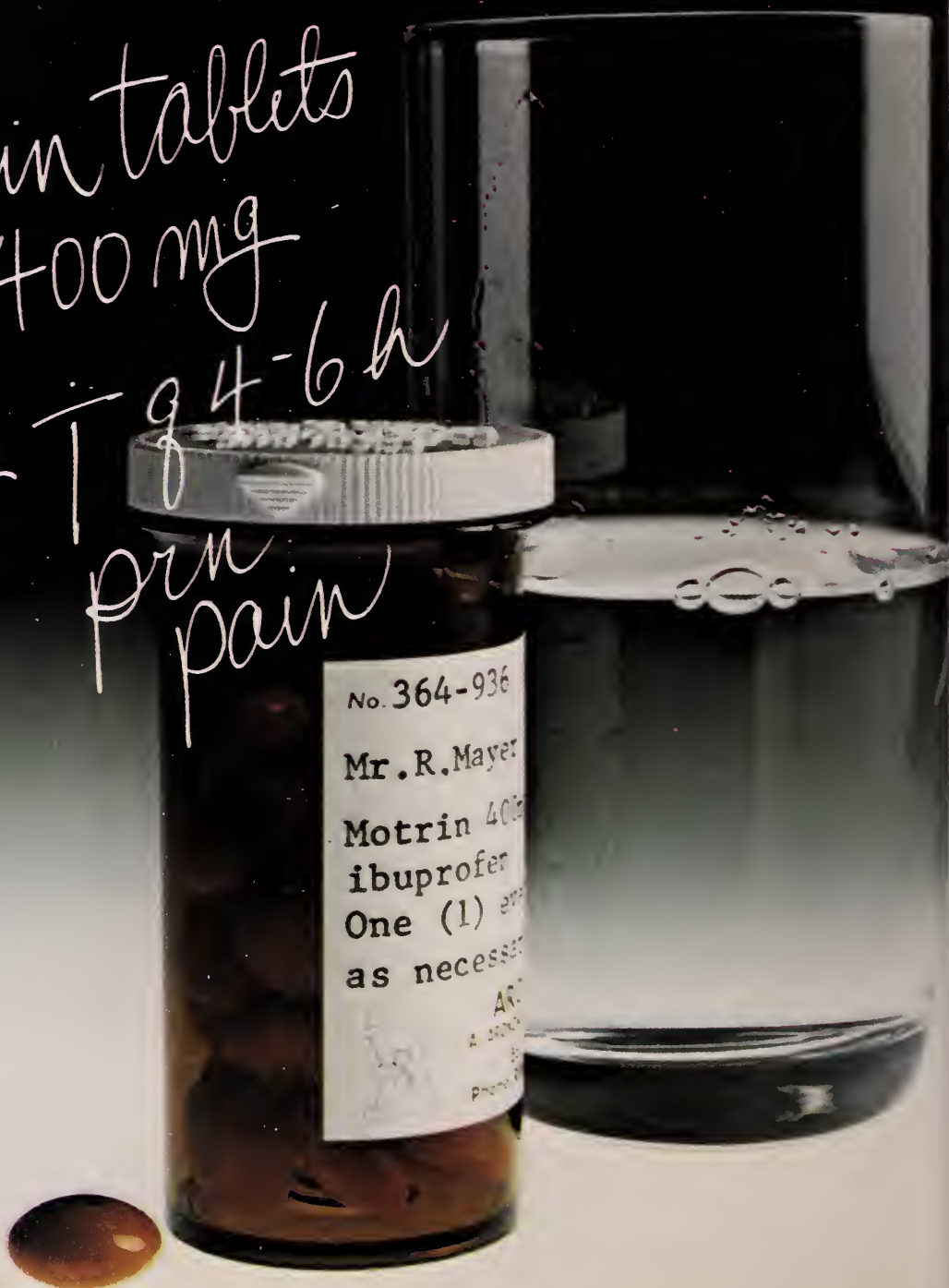


For prescribing information see opposite page.

A well-tolerated, nonnarcotic prescription for pain

Motrin tablets
400 mg

Sig T q 4-6 h
prn
pain



No. 364-936

Mr. R. Mayer

Motrin 400

ibuprofen

One (1) tablet

as necessary

Motrin[®] now proved an effective analgesic for mild to moderate pain

Motrin 400 mg provided greater relief of pain than did propoxyphene 65 mg in controlled clinical pain studies.

Time after drug administration (hour)		.5	1	2	3	4
Mean relief-of-pain scores* (No. patients reporting)	Motrin 400 mg ibuprofen	.89 (108)	1.25 (108)	1.36 (108)	1.28 (107)	1.19 (106)
	Darvon 65 mg propoxyphene	.66 (100)	.99 (99)	1.13 (96)	.99 (96)	.80 (96)
Statistical significance		p<0.02	p<0.01	p<0.05	p<0.02	p<0.002

*0 = No relief 1 = Partial relief 2 = Complete relief

Data on file at The Upjohn Company

Motrin demonstrated statistically significant greater relief of pain than did Darvon at all time intervals.

Motrin 400mg TABLETS
ibuprofen, Upjohn

- Not a narcotic • Not addictive • Not habit forming
- Rapid analgesic action • Indicated in acute and chronic pain
- Well tolerated. The most common side effect with Motrin is mild gastrointestinal disturbance.

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Relief of mild to moderate pain.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. Aspirin: used concomitantly may decrease Motrin blood levels.

Coumarin: Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy or by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400 or 600 mg t.i.d. or q.i.d.

Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

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the original (allopurinol)

100 and 300 mg

Scored Tablets

The name
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1980

SPRING: A NEW BEGINNING



NEWS ROUND - UP

March, 1980

Physicians to gather for 122nd Annual Session

Physicians from all over Missouri will gather in Kansas City at the 122nd Annual Session of the Missouri State Medical Association to discuss many topics of importance to the medical profession and to attend an outstanding scientific program.

The 1980 Annual Session will be held April 17-20 at the Crown Center Hotel.

Gordon H. Deckert, M.D., a professor and head of the Department of Psychiatry and Behavioral Sciences, University of Oklahoma Health Sciences Center, will be the featured speaker at the Opening General Session on Friday, April 18. His topic will be "Physician, Heal Thyself."

Continued on Next Page

Schedule of Events

Thursday, April 17

- 8:00 a.m. Registration of Delegates, **Century Foyer**
- 10:30 a.m. House of Delegates, Opening Session, **Century Room**
- 1:00 p.m. Reference Committee Meetings
- 6:30 p.m. MSMA Auxiliary Auction, **Centennial "B" Room**

Friday, April 18

- 7:00 a.m. Fun Run
- 8:00 a.m. Registration, **Century Foyer**
- 8:00 a.m. Exhibits Open
- 9:00 a.m. General Session, **Century Room**
Introductions: **Andrew McCanse, M.D.**, Kansas City, MSMA President
Greetings from the AMA: **Robert B. Hunter, M.D.**, Sedro Woolley, Washington, President-Elect, AMA
Speaker: *Physician, Heal Thyself*—**Gordon H. Deckert, M.D.**, Oklahoma City, Oklahoma
- 11:00 a.m. Scientific Sessions Begin
- 3:00 p.m. Missouri State Medical Foundation Annual Meeting, **Century Room**

- 4:00 p.m. House of Delegates, Second Session, **Century Room**
- 6:00 p.m. Reference Committee Meetings

Saturday, April 19

- 7:30 a.m. MSMA Auxiliary Public Affairs Breakfast, **Century Room**
Speaker: **The Honorable Gene Taylor, U.S.** Congressman, Missouri's 7th District
- 8:00 a.m. Registration, **Century Foyer**
- 8:00 a.m. Exhibits Open
- 9:00 a.m. Impaired Physician Program, **Westport Room**
- 12:30 p.m. Fifty-Year Club Luncheon, **Ambassadors Board Room**
- 6:30 p.m. MSMA Social Hour for those attending Past Presidents Banquet, **Century Foyer**
- 7:00 p.m. MSMA Annual Banquet, **Century Room**

Sunday, April 20

- 7:30 a.m. House of Delegates Breakfast and Final Session, **Century Room**

Annual Session

Continued



Dr. Gordon Deckert

Discussion on a variety of resolutions will begin at the opening session of the MSMA House of Delegates at 10:30 a.m., Thursday, April 17. All resolutions, plus committee and commission reports and summaries of Council meetings will be referred to open Reference Committees where MSMA members are invited to express their opinions on the subjects at hand.

Reference Committees will meet beginning at 1 p.m. on Thursday. The second meeting of the House will be at 4 p.m., Friday, and the final session at 7:30 a.m., Sunday.

Again this year, the scientific portion of the Annual Session should be excellent, with 28 scientific sessions sponsored by 18 medical specialties and two voluntary health organizations. These sessions are approved for Category 1 CME credit and are also acceptable for prescribed and elective hours by the American Academy of Family Physicians.

For the first time, an Impaired Physician Program is being sponsored by the MSMA Committee on the Impaired Physician. The program, to be held from 9 a.m. - 4 p.m. on Saturday, April 19, will feature experts on the areas of alcoholism, drug abuse, mental and emotional illness, effects upon the family and possible disciplinary measures for the impaired physician.

There will also be 33 Technical Exhibits. MSMA members who register at the Exhibit Booths will be eligible for attendance prizes to be awarded on Friday and Saturday, April 18-19.

The MSMA Auxiliary will host several activities during this Annual Session. The Public Affairs Breakfast will begin at 7:30 a.m., Saturday. At this breakfast, the speaker will be the Honorable Gene Taylor, who has represented Missouri's 7th District in the U.S. House of Representatives since 1972. The Auxiliary is also sponsoring its second annual Benefit Auction for AMA-ERF/MSMF, which will begin at 6:30 p.m., Thursday, April 17.

The annual Past Presidents Banquet will be held Saturday evening. Tickets for this Banquet, the 50-Year Club Luncheon and the Breakfast Meeting of the House of Delegates will be available at the Registration Desk.

MSMA now entitled to fifth AMA delegate

Because of the increase in the number of AMA members in Missouri, the MSMA is now entitled to send an additional delegate to the AMA House of Delegates.

As of December 31, 1979, the MSMA had 4,031 members belonging to the AMA. This includes 3,445 regular members and 586 dues exempt members.

The Association is now entitled to a fifth AMA delegate and alternate.

MSMA House to debate sixteen resolutions

Sixteen resolutions have been introduced to date for consideration by the MSMA House of Delegates at the 1980 Annual Session.

These resolutions will be referred to the Reference Committees at the opening session of the House.

According to the MSMA Bylaws, any resolution not introduced in the Delegate's Handbook must be made available to the House of Delegates 24 hours before the session in which it is to be introduced. Sufficient copies of the resolutions or funding for same must be supplied by the individual or society introducing the resolution.

At the second session of the House, the same procedure must be followed, but such introduction is allowed only if approved by two thirds of the delegates voting. At the final session of the House, it requires a unanimous vote of delegates to allow introduction.

The resolutions submitted to date are:

- No. 1 — Bylaws Amendment of Chapter VI. Council, Section 2
- No. 2 — Privilege of the Floor
- No. 3 — CAT Scanners
- No. 4 — Credentialing of Physician Assistants Practicing in Missouri
- No. 5 — Proper Care for all Patients
- No. 6 — AMA Appointments to National Educational Councils
- No. 7 — Administration of Continuing Medical Education
- No. 8 — Support of the Diploma Nursing Schools
- No. 9 — Physician Privacy in Professional Liability Actions
- No. 10 — Eligibility for Missouri State Medical Foundation Loans
- No. 11 — Proposed Definition of the Practice of Medicine
- No. 12 — Continued Assessment for the Missouri State Medical Foundation
- No. 13 — Board of Healing Arts Report
- No. 14 — AMA Endorsement of All American Medical Hall of Fame
- No. 15 — Certificate of Membership
- No. 16 — Amending Missouri Statutes to Assure Better Eye Care

American Medical Women's Association to host April 19 program

All women medical students and physicians in Missouri are invited to attend a program and luncheon sponsored by the American Medical Women's Association on Saturday, April 19, 1980. This program will be held at the Crown Center Hotel in Kansas City in conjunction with the MSMA Annual Session.

The featured speaker will be Mary Ann Bartusis, M.D., a psychiatrist in private practice. She will talk about medical marriages and women physicians.

The American Medical Women's Association, founded in 1915, is an organization promoting the interests of women physicians through the publication of a journal and a newsletter, CME accredited scientific programs, leadership workshops, loans, scholarships and awards to medical students, a professional resource data bank and affiliation with women physicians around the world.

For tickets to the April 19 program, please contact Dr. Esther Winkelman, 6400 Prospect, Kansas City, MO 64132. Telephone number: (816) 523-4435.



*Andrew McCanse, M.D.
President*



*Richard V. Bradley, M.D.
President-Elect*

Dr. Bradley to receive MSMA gavel

Leadership of the Missouri State Medical Association will shift to a St. Louis physician on Saturday night, April 19, at the annual Past Presidents' Banquet at the Crown Center Hotel in Kansas City.

At this Banquet, President Andrew McCanse, M.D., a Kansas City general surgeon, will present the MSMA gavel to President-Elect Richard V. Bradley, M.D., a St. Louis general surgeon.

Prior to becoming President-Elect, Dr. Bradley was chairman of the MSMA Council, served several terms as Councilor from the Third District and has been MSMA Treasurer.

Dr. Bradley has been active on behalf of the medical profession for many years and in a variety of capacities. He has been president of the St. Louis Medical Society and a member of the following organizations: American Medical Association, St. Louis Surgical Society, American College of Surgeons, Southern Medical Association and others.

Dr. Bradley received his M.D. from Washington University. He spent his internship and residency in surgery at Barnes Hospital in St. Louis.

Physicians contribute to sponsor medical students to Annual Session

Donations are still needed to sponsor medical students to the MSMA Annual Session. Through these contributions, students can find out more about the MSMA by attending House of Delegates meetings, scientific sessions and the Annual Banquet.

To date, five physicians have made contributions to the 1980 MSMA Student Annual Session Fund:

B. A. Moranville, M.D., Columbia
Paul L. Friedman, M.D., St. Louis
Thomas J. Cooper, M.D., St. Louis
Norma P. Farmer, M.D., Farmington
Roy W. Pearce, M.D., Nevada

If you would still like to make a contribution to sponsor the attendance of a medical student to the upcoming Annual Session, please send it as soon as possible to: Missouri State Medical Association Student Fund, P.O. Box 1028, Jefferson City, MO 65102.

Resident physicians can still attend May workshop in St. Louis

There are still openings for resident physicians and other doctors planning to enter private practice to attend the "Establishing Yourself in Medical Practice" workshop, May 15 and 16, 1980, at the Airport Marriott in St. Louis.

The two-day program is designed to provide physicians with essential information about the business aspects of setting up and operating a medical practice. Participants in past MSMA-sponsored workshops for resident physicians were enthusiastic about the program.

If you would like to attend, please register as soon as possible. The registration fee is \$70 for members of the MSMA and \$80 for non-members.

For additional information, see the January issue of the MSMA News Round-Up or write to the MSMA, Box 1028, Jefferson City, MO 65102.

Council approves resolution on MOMEDICO

During the February meeting of the MSMA Council, a resolution was approved concerning the changing of the capital structure of MOMEDICO, which reclassifies the stock in various voting levels, but with the MSMA retaining not less than 44 percent of the voting power of all shares of MOMEDICO. The resolution permits the President or any appropriate officer of the MSMA to take such actions on behalf of the MSMA as are necessary to carry out the approved agreement among MSMA, MOMEDICO and Boatmen's National Bank of St. Louis.

The Council voted to simplify the procedure on the Delegates' Credentials cards by requiring only the secretary or executive secretary to sign the cards.

Also at the meeting, the Council approved the Constitution and Bylaws and issuance of a charter to the Tri-Lakes Medical Society. This new society consists of Stone and Taney counties. Charters for the Washington University Student Medical Society and the University of Missouri-Columbia Student Medical Society were also approved.

The following hospitals were approved by the Council for accreditation to sponsor Continuing Medical Education programs: Spelman Memorial Hospital, Smithville (two years); St. Mary's Hospital, Kansas City (four years); Trinity Lutheran Hospital, Kansas City (three years); and Baptist Memorial Hospital, Kansas City (three years).

In his report, MSMA President McCanse, M.D. stated that Dr. John Layle, Kansas City, and Dr. Earl Wright, Kansas City, had been appointed to the State Voluntary Effort Cost Effectiveness Committee. Dr. Robert C. Fairchild of Kansas City was appointed to serve on the new Nursing Education Committee. Dr. Stanley Peterson, Springfield, was recommended for appointment to

the State Health Coordinating Council. Dr. Wilfred Wooldridge was re-appointed as Editor of MISSOURI MEDICINE.

In other actions, the Council:

- Voted to explore the possibility of co-sponsorship of programs during the Southern Medical Association meeting in 1983 in St. Louis.

- Voted to send a letter of support for a grant applied for by the Governor's Task Force on Emergency Medical Services.

- Approved the Budget and Finance Committee's recommendation for an increase in the MSMA Auxiliary budget item for 1980.

- Instructed MSMA staff to continue discussions with the Division of Family Services regarding the matter of a deferred compensation plan for Medicaid payments.

- Approved the report of the Committee on Legislative Affairs regarding the progress of the bills before the 1980 Missouri General Assembly.

- Adopted the report of the meeting of the Commission on Medical-Legal Affairs with the medical-legal committees of the Missouri Association of Osteopathic Physicians and Surgeons and the Missouri Bar Association.

- Commended the Commission on Medical Economics for its efforts on behalf of organized medicine.

- Filed the report of the Committee on AMA Nominations.

- Appointed the following AMA Membership Committee to consider methods of reorganizing the AMA and increasing AMA membership: Dr. Richard Bradley, chairman, Dr. Andrew McCanse and Dr. Eugene Hansbrough; Ex Officio members — Royal O. Cooper, Allen Smith and Gordon R. Garrett.

E.D.S. Federal schedules workshops to discuss Medicaid

The E.D.S. Federal Professional Relations staff has scheduled a series of physician workshops in March, April and May. The workshops provide an opportunity for the physician to discuss the Missouri Medicaid Program with E.D.S. Federal. In particular, the workshops

illustrate proper billing procedures, emphasizing the importance of giving the most complete information.

Below is a schedule of the dates, places, and times of the workshops. Please contact the E.D.S. Federal Communications Unit if you have any questions concerning the workshops.

PHYSICIAN WORKSHOP SCHEDULE

Date	City	Time	Location	Address	Room
March 14	Columbia	1:00 p.m.	Hilton Inn	2200 I-70 Dr. S.W.	Columns 2, 3, 4
March 21	St. Louis	9:00 a.m.	Washington University	4580 Scott	Carl V. Moore Auditorium
March 31	Springfield	9:00 a.m.	Cox Medical Center	1423 N. Jefferson	Fountain Plaza Room
April 11	Kansas City	9:00 a.m.	Kansas City College of Osteopathic Medicine	2105 Independence	Auditorium
April 18	Kirkville	9:00 a.m.	Kirkville College of Osteopathic Medicine	800 W. Jefferson	#118
April 25	Cape Girardeau	9:00 a.m.	Southeast Missouri State University	900 Normal	University Center Party Room
May 2	Joplin	8:30 a.m.	Freeman Hospital	102 West 32nd	The Rosemary Titus Rentals Health Education Center

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SUPPOSITORIES/CREAM WITH HYDROCORTISONE ACETATE

#1 prescribed hemorrhoidal product

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IN 1959

AND IT STILL IS...

The professional source of
modern anorectal comfort

ANUSOL-HC® SUPPOSITORIES

Hemorrhoidal Suppositories

ANUSOL-HC® CREAM

Rectal Cream with Hydrocortisone Acetate

Caution: Federal law prohibits dispensing without prescription.

Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Indications: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas and relief of local pain and discomfort following anorectal surgery.

Anusol-HC Cream is also indicated for pruritus ani.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: Symptomatic relief should not delay definitive diagnoses or treatment.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants. Anusol-HC is not for ophthalmic use.

Dosage and Administration: Anusol-HC Suppositories — Adults. Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at

bedtime for 3 to 6 days or until inflammation subsides. Then maintain patient comfort with regular Anusol Suppositories.

Anusol-HC Cream — Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain patient comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories — boxes of 12 (N 0047-0089-12) and boxes of 24 (N 0047-0089-24) in silver foil strips with Anusol-HC W/C printed in black.

Anusol-HC Cream — one-ounce tube (N 0047-0090-01) with plastic applicator.

Store between 59°-86° F (15°-30° C).

Full information is available on request

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V-Cillin K[®]

penicillin V potassium

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brand of oral penicillin



Tablets
125, 250, and 500 mg*
Oral Solution
125 and 250 mg*/5 ml

V-Cillin K[®] penicillin V potassium

Description: V-Cillin K is the potassium salt of penicillin V. This chemically improved form combines acid stability with immediate solubility and rapid absorption.

Indications: For the treatment of mild to moderately severe pneumococcal respiratory tract infections and mild staphylococcal skin and soft-tissue infections that are sensitive to penicillin G. See the package literature for other indications.

Contraindication: Previous hypersensitivity to penicillin.

Warnings: Serious, occasionally fatal, anaphylactoid reactions have been reported. Some patients with penicillin hypersensitivity have had severe reactions to a cephalosporin; inquire about penicillin, cephalosporin, or other allergies

before treatment. If an allergic reaction occurs, discontinue the drug and treat with the usual agents (e.g., epinephrine or other pressor amines, antihistamines, or corticosteroids).

Precautions: Use with caution in individuals with histories of significant allergies and/or asthma. Do not rely on oral administration in patients with severe illness, nausea, vomiting, gastric dilatation, cardiospasm, or intestinal hypermotility. Occasional patients will not absorb therapeutic amounts given orally. In streptococcal infections, treat until the organism is eliminated (minimum of ten days). With prolonged use, nonsusceptible organisms, including fungi, may overgrow; treat superinfection appropriately.

Adverse Reactions: Hypersensitivity, including fatal anaphylaxis. Nausea, vomiting, epigastric distress, diarrhea, and black, hairy tongue. Skin eruptions, urticaria, reactions resembling serum sickness (including chills, edema, arthralgia, prostration), laryngeal edema, fever, and eosinophilia. Infrequent hemolytic anemia, leukopenia, thrombocytopenia, neuropathy, and nephropathy, usually with high doses of parenteral penicillin.

(102175)

*Equivalent to penicillin V.

Additional information available to the profession on request.



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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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PHILIP HIGGS, M.D., R. CHRIS WRAY, M.D.
and PAUL M. WEEKS, M.D., St. Louis

Replantation of Completely and Incompletely Amputated Hand Parts

Case Reports

THE ERA OF REPLANTATION SURGERY began in 1962 when Malt¹ successfully replanted the right arm of a 12-year-old boy. Subsequent successes led to rapid improvement in instrumentation and techniques. Earlier Jacobsen and Saurez (1960)² demonstrated that use of the operating microscope could significantly improve the results of vascular anastomosis in vessels less than 4 mm in diameter. Quickly, successful reports of digital revascularization of incomplete and complete amputations appeared.

Rapid advances in instrumentation occurred. The operating room microscope was improved to enable the surgeon to operate with ease at magnifications of 5× to 40×. Fine jeweler's forceps were developed to facilitate the manipulation of vessels and nerves and the handling of suture material. Precision tissue scissors for preparation of blood vessels and nerves for repair were introduced. Needle holders were developed for handling needles of 50 μ to 140 μ swedged on to sutures of 18 μ to 22 μ in diameter. Clamps and microvascular clips to aid in the control of blood vessels were developed.

Once technology was available and many cases of successful replantation had been accomplished, it became evident that all amputated parts should not be replanted. The initial enthusiasm for successful restoration of viability gave way to the question of how well the replanted part functioned. When should a finger be revascularized?

When a finger or hand is devascularized in association with incomplete or complete amputation, revascularization and replantation must be considered. The patient with partial or complete amputation of upper extremity parts immediately requires general assessment of other critical injuries followed by untwisting of traumatic flaps, local wound care, tetanus prophylaxis and antibiotics. Completely amputated parts should be cooled by sealing them in a plastic bag and placing the bag in ice water. Partially amputated parts should be cooled by placing ice filled bags directly on the part. Devascularized parts can survive for more than 24 hours when cooled to 4 C. After this preliminary care, the part should be considered for immediate revascularization. If the physician is not experienced in replantation surgery, the

Revascularization of completely or incompletely amputated hand parts has become well established in the past ten years. Early enthusiasm for viability has given way to more concern for the ultimate function of the involved hand. The authors discuss their considerations and recommendations as they present four case reports to demonstrate the use of microvascular surgery.

Drs. Higgs, Wray and Weeks are from the Division of Plastic Surgery, Washington University School of Medicine.

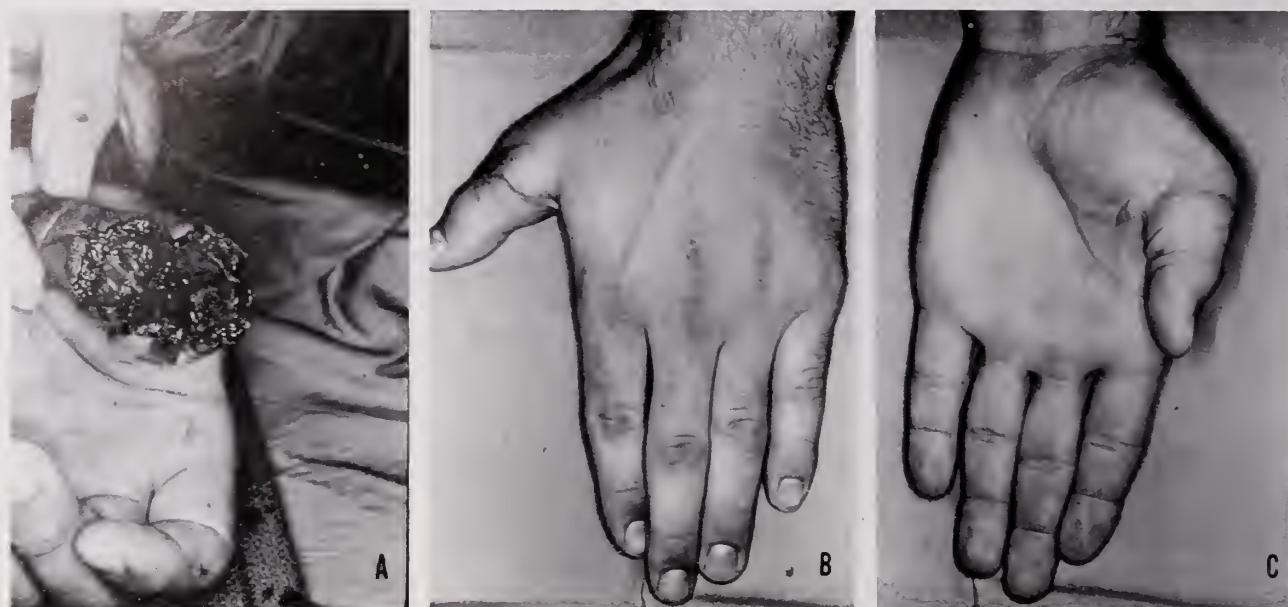


Fig. 1 Case #1. (A) Preoperative view. All tendons, nerves and vessels have been severed. One centimeter of volar skin remains intact. (B, C) Five months postoperative with excellent function.

patient should be transferred to a facility where microsurgery is routinely performed and the decision regarding replantation can be made based on clinical experience.

Consideration for the revascularization of either partially or completely amputated parts is essentially the same with the exception that the partially amputated part will have to meet less stringent criteria than a completely amputated part because fewer structures will need repair and a better result can be anticipated. Morrison *et al*³ have reported the simple survival in partially avulsed digits to be 65% versus 20% for completely avulsed digits. Better tendon gliding can be expected if a tendon has not been severed. Although fairly good sensation has been reported following replantation, one would expect many of these to achieve near normal sensation if nerves are intact. Intact skin bridges supply vascular channels which provide for venous return and, thus, decrease congestion and swelling. All these factors lead to improved function.

Which digits should be revascularized or replanted and under what circumstances? We have separated the various situations into 3 groups.

Group I

- (A) Entire hand or upper extremity
- (B) Thumb proximal to interphalangeal joint
- (C) Four digits proximal to the proximal interphalangeal joints

Group II

Three radial digits proximal to the proximal

interphalangeal joint

Group III

- (A) Two or less digits
- (B) Digits distal to the proximal interphalangeal joint

In general, any injury which falls in Group I should be considered for revascularization, except in the case of very severe crushing injuries. These include amputations of the thumb, the hand, the upper extremities or amputation of all four fingers of a hand. Except under very unusual circumstances, amputations distal to the middle phalanx are not considered candidates for revascularization in any of the mentioned groups. To give an example, the hand with four fingers amputated, three of which are at the level of midproximal phalanx and the fourth at the distal joint, would only have the three more proximally amputated digits replanted.

It has been found that replantation of one or two digits in an otherwise normal hand will add very little to hand function and usually detracts from its function. Considering this with a much longer rehabilitation period for replanted digits, two or less digits or the more distal amputations, as in Group III, are not considered candidates for replantation except under extenuating circumstances. These might include cosmetic consideration or, possibly, the case of an individual who makes his living as a musician requiring all four fingers.

Injuries occurring in Group II are in a more

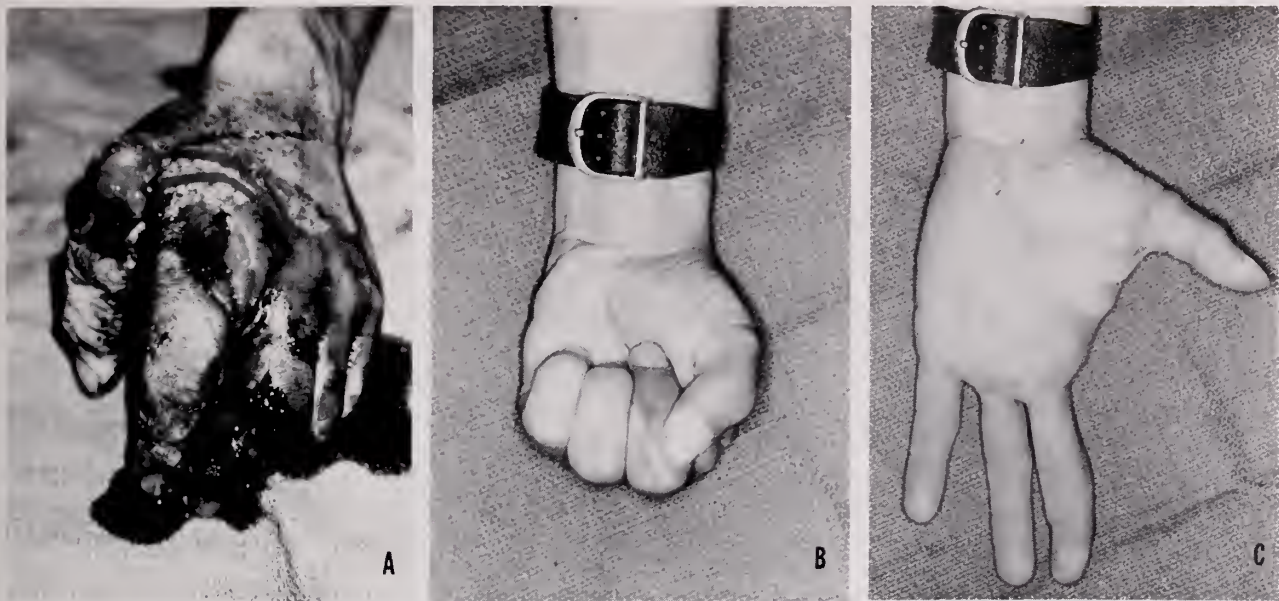


Fig. 2 Case #2. (A) Preoperative view. All structures except 1 cm of skin severed to thumb and index finger. In addition, the long finger has the ulnar digital nerve intact. (B, C) Eight months postoperatively.

nebulous area. Here avulsed or badly crushed amputations are not replanted while the sharp amputations or mildly crushing amputations are replanted.

CASE REPORTS

Case #1 A 22-year-old man had both thumbs incompletely amputated at the level of the mid proximal phalanx (Fig. 1). Both thumbs were attached only by a 1 cm bridge of ventral skin. His primary care physician realized that both thumbs had been completely devascularized and transferred him to Barnes Hospital. Two veins and one artery were repaired in each thumb after fixation of the bone and repair of the extensor and flexor tendons and the digital nerves. Total ischemic time was 14 and 16 hours for the right and left thumb, respectively. The patient was given aspirin and antibiotics postoperatively. Both thumbs survived and were functioning well six months after revascularization.

Case #2 A 15-year-old boy sustained a crushing injury resulting in incomplete amputation and devascularization to his left thumb, index and long fingers (Fig. 2). The level of injury was through the metacarpal phalangeal joint of the thumb and index fingers and the midportion of the middle phalanx of the long finger. He arrived at Barnes Hospital seven hours after injury. The amputated digits were revascularized. One vein and one artery were repaired in the thumb and index finger. Only one artery was repaired in the long finger, however, since no suitable veins could be found. Postoperatively, the distal half of the index finger became necrotic and required amputation. A ray amputation was performed. The patient received antibiotics and aspirin. The long finger and thumb have acquired excellent function.

Case #3 A 19-year-old girl sustained a complete

degloving injury to her ring finger of her right hand when a ring she was wearing caught on the side of a truck as she was jumping off. The nerves to the skin remained intact, but both distal arteries and all of the dorsal veins were severed. The skin was replaced and revascularized. There was complete survival. At six months, two point discrimination was 4 mm and she could fully flex and extend the finger.

Case #4 A 26-year-old man sustained a crush injury to his right hand which essentially destroyed his thumb and stripped all of the volar soft tissue except tendons from the index finger base. At the time of the operation, the finger was cold without turgor or capillary refill. The thumb was amputated, an associated fracture of the index metacarpal was repaired and the index finger was revascularized. Postoperatively, the finger remained viable. The patient is presently undergoing rehabilitation to regain active movement of the index finger. It is anticipated that function will be excellent.

DISCUSSION

The goal of revascularization, as well as replantation, is to gain the maximum function in a hand following injury. In Cases #1 and #2, the thumbs were revascularized. Both have obtained excellent function. Sensory recovery in the first case was 4 mm and 6 mm two point discrimination. The patient in Case #2 had no return of sensation to his thumb and has recently undergone a sural nerve graft. His long finger has a two point discrimination of 4 mm.

The third case represents an injury which would have been treated by amputation of the

(Continued on page 134)

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Scoliosis and Kyphosis

Review and Current Concepts

FOR MANY YEARS, scoliosis and kyphosis have represented two of the most treatable but neglected problems of childhood and adolescence. Because most of these problems are not symptomatic during the developing years, many children were allowed to develop deformities which were preventable or correctable. This has resulted in significant physical or emotional damage or both for those patients who have carried these spinal deformities into adult life.

The Missouri State Legislature in 1977 passed a bill funding statewide school screening for spinal deformities. The screening was organized during the spring of 1978 and became widely implemented at the start of the school year of 1979.

For this reason, we will briefly review both the problem and treatment of spinal deformity in children, adolescents and adults.

INCIDENCE

From screening surveys in more than 25 states,

During the past ten years, significant progress has been made in the treatment of scoliosis and kyphosis, which have been two of the most treatable but neglected problems of childhood and adolescence. The development of statewide school screening surveys now allows for early identification of scoliosis and kyphosis deformities. The development of new types of braces and surgical techniques have made possible the correction of deformities that previously were uncorrectable.

Please note that in addition to the references cited in this article, a special bibliography is provided for those who wish to investigate this subject further.

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it appears that from 4% to 15% of developing eleven to 14-year-old children have some asymmetry of their shoulders, back or flanks which may be picked up on screening examination. However, only .1% to 2% of these children actually have a spinal deformity which needs treatment.¹

SCREENING TECHNIQUE

Thus, while scoliosis and kyphosis are not very common, each developing deformity is treatable and the major morbidity that arises from the deformity is *preventable*. For this reason, children must be screened for developing spinal deformity to insure early treatment.

This screening is simple and should require no more than ten to 15 seconds during a general physical examination. This should be done on all children from ten to 16 years of age during pre-school or other examinations.

Patients with any kind of paralytic neuromuscular disorder (cerebral palsy, myelomeningocele, Friedrich's ataxia, muscular dystrophy or traumatic paraplegia) need special attention to the problem of scoliosis. The incidence is as high as 50% in many of these patients.

THE SCREENING EXAMINATION

Figs. 1 and 2 show the physical findings associated with a developing spinal curvature. These are all shown on patient TR (Fig. 3), a 15-year-old girl with an idiopathic double primary scoliosis.

After the patient is bent forward to do the *bend test*, he is turned sideways where the kyphotic-lordotic relationships of the spine are examined. A bend test done in this position will also reveal the presence of kyphotic tendencies in the spine better than in the standing examination. In Fig. 4, the patient in the standing position reveals a definite increase in his dorsal kyphosis. On forward bending, however, the angular nature of the spine in the mid-dorsal area demonstrates a developing adolescent kyphosis (Scheurmann's disease).²

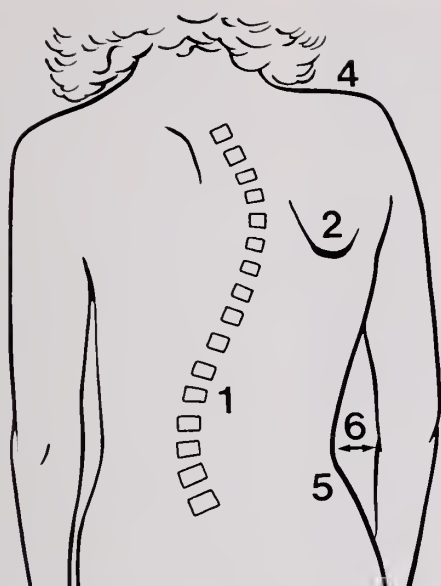


Fig. 1 Physical findings in patients with scoliosis.



Fig. 2 The Bend Test.

Note:

1. Shape of spine
2. Prominent shoulder blade
3. Rib hump
4. Shoulder level
5. Hip level
6. Distance between body and arms

This examination will identify a scoliosis and kyphosis of more than 40 different causes. Three etiologies, however, provide more than 95% of the cases and deserve emphasis (Table 1).

IDIOPATHIC SCOLIOSIS³

Idiopathic scoliosis (Figs. 5, 6 & 7) is by far the most common etiologic form of scoliosis, comprising 85% of cases seen in large clinical samples. It is many times hereditary. A daughter or other first-degree relative of a mother who has scoliosis has a 40% chance of developing a significant curve (Fig. 8).^{4, 5}

Although the majority (more than 90%) of idiopathic curves develop between ages ten and

14, a few begin during childhood. Also, a few cases are reported in children less than two years of age. Thus, any age group is suspect.

The exact cause of this particular type of scoliosis is unknown. Biochemical assays of intervertebral disc material have suggested some difference of patients with scoliosis from normals and studies of the paravertebral muscles have indicated the possibility of structural differences from normal. The basic cause, however, is still under investigation.⁶

CONGENITAL SCOLIOSIS⁷

The second large group of scoliosis patients are those with congenital malformations of the ver-

TABLE 1

	<i>Etiology</i>	<i>Age at Onset</i>	<i>Prognosis Without Early Identification</i>	<i>Prognosis With Early Identification</i>	<i>Sex Predominance</i>	<i>Family History</i>
Idiopathic	Intervertebral disc and growth plate abnormality	Usually adolescence but may be at any age	Guarded because of increasing deformity and lower back pain	Excellent management with conservative methods	Five to one female predominance	Many times positive
Congenital	Malformed osseous vertebral elements	Usually identified by age 3	Poor because of cardiorespiratory or neurologic deficit	Excellent with simple surgical or conservative management	Neither sex	Usually negative
Paralytic	Abnormal spinal support because of muscular weakness	Begins when paralysis begins	Poor because of progressive spinal collapse leading to spinal decompensation and inability to sit	Excellent by relatively safe surgical procedures or conservative methods	None	Usually negative

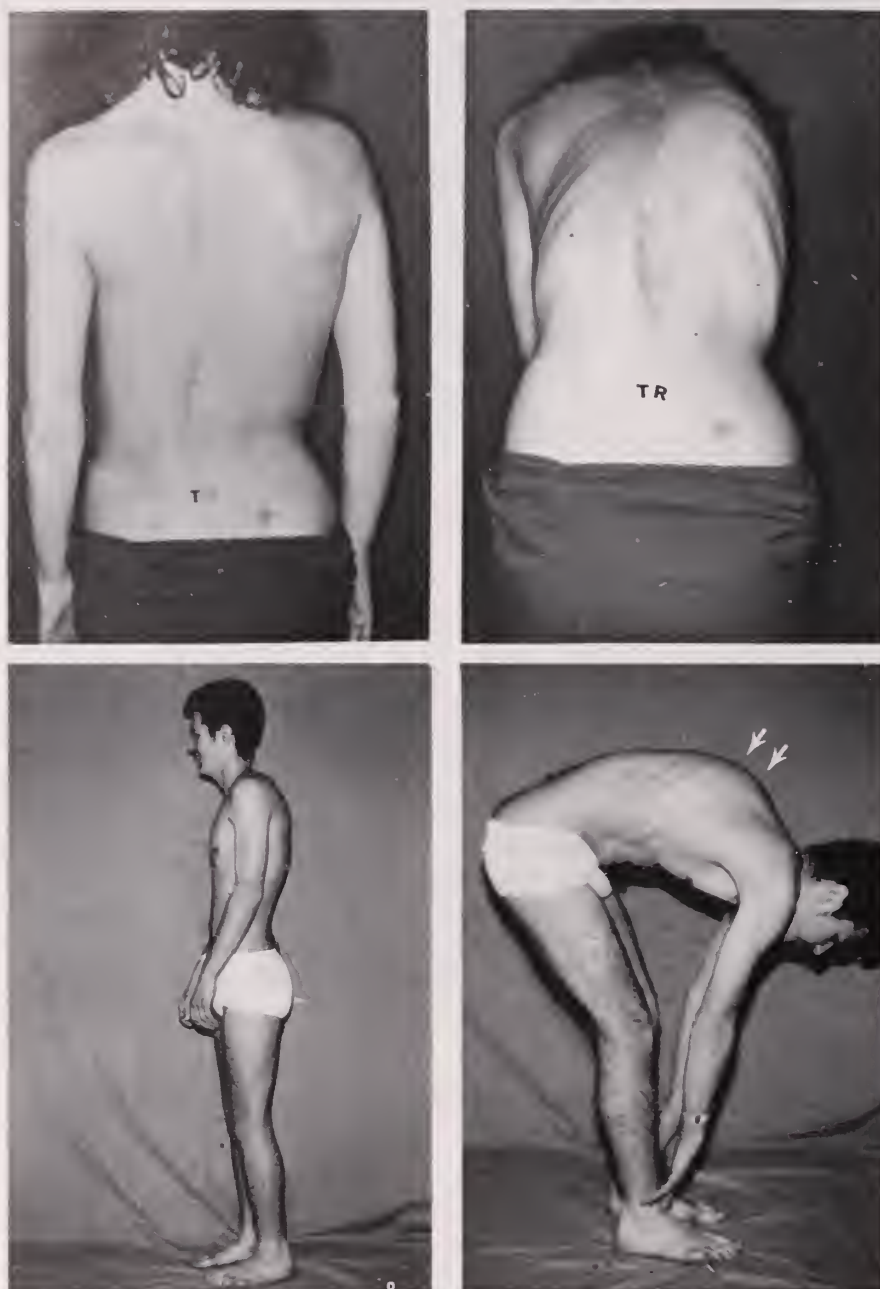


Fig. 3 (Left) Physical findings in scoliosis depend on where in the spine the curvature exists. Asymmetry of the shoulders, asymmetry of the scapulae, a difference in arm hanging pattern, a difference in flank size or inequality of the height of the iliac crest all indicate the presence of underlying deformity and the need for proper x-ray assessment. Standing examinations are mandatory. (Right) Physical findings in scoliosis are magnified when the patient bends forward. This Bend Test is the best way to see early physical evidence of a developing curve.

Fig. 4 Kyphosis. (Left) Generally, the cervical lordosis, dorsal kyphosis and lumbar lordosis show smooth, gradual transitions. This boy has obvious aggravation of his dorsal kyphosis (Scheurmann's disease). (Right) On forward bending, the angular tendency to his dorsal kyphosis is evident, indicating the presence of underlying wedged vertebra. The dorsal spine should be smoothly rounded when the patient is bent forward, not angulated.

tebra. These patients are almost all identified by the time they reach three years of age either by an attentive parent or physician who identifies the spinal deformity or by a radiologist who identifies the abnormality in an x-ray taken for another problem (Fig. 9).

These congenitally deformed spines may be developed so that progressively increasing deformity occurs as the child grows. This kind of rapidly progressive scoliosis produces very severe spinal deformity and produces many of the cases of spinal cord or cardiopulmonary compromise or both which occur secondary to scoliosis.

PARALYTIC SCOLIOSIS⁸

The third relatively common problem producing scoliosis is muscular paralysis. Until the eradication of poliomyelitis, paralytic scoliosis was by far the most common type. Although scoliosis from polio is still seen in older age-group patients, the paralytic scoliosis patients seen now suffer from other types of paralytic neuromuscular disorders, such as muscular dystrophy, cerebral palsy, myelomeningocele, Kugelberg-Welander syndrome, traumatic paraplegia or Friedrich's ataxia (Fig. 10).



Fig. 5 Thoracic Scoliosis. (Left and center) Thoracic scoliosis is the most common type. Here the shoulders are different in height, the scapula protrudes and one can see the rib hump on forward bending. (Right) The curvature is almost always more dramatic on x-ray than the physical findings demonstrate.



Fig. 6 Thoracolumbar Scoliosis. (Left and center) When the curve is lower in the thoracic spine, the rib hump deformity appears toward the lower end of the rib cage. The major deformity is made most obvious by forward bending (the Bend Test). (Right) Curves of this severity must have operative treatment to achieve proper balance, but when flexibility exists, surgical treatment is gratifying.

OTHER TYPES

Certain less common diseases and conditions associated with scoliosis need particular emphasis. The scoliosis associated with cyanotic congenital heart disease can be particularly disabling in an already compromised patient. Scoliosis is

regularly associated with Marfan's syndrome and can become severe. In osteogenesis imperfecta, the spinal deformity may become extremely severe. In Morquio's disease, the localized thoracolumbar kyphosis can produce very rapid paraplegia. In all these areas, a high index of



Fig. 7 *Lumbar Scoliosis*. In lumbar scoliosis, the major deformities are low in the back. A rib hump and asymmetry of the shoulders do not occur because of the relatively straight thoracic spine. One iliac crest becomes prominent. Often, this is confused with leg-length inequality. This latter must be ruled out by proper leg-length assessment.

suspicion will lead to early diagnosis, early treatment and optimal results.

TREATMENT OF SCOLIOSIS

The principles of scoliosis treatment are the following:

1. Prevent deformity first.
2. Correct deformity if established deformity exists.
3. Maintain spine balance and mobility.
4. Protect the heart, lungs and spinal cord.



Fig. 8 The most common type of scoliosis is familial. Close relatives of a patient who has scoliosis have a 40% chance of having it, although the severity in different generations may be different than for the index patient. The three sisters pictured above show curves, although the patient on the right has the most severe curve.

Exercises

Though exercises are good for everyone to maintain muscle tone and spinal flexibility, exercises alone will not correct or prevent progression of a developing scoliosis. They have a very important place in brace treatment, however.

Braces

Various types of braces are the foundation of nonoperative treatment of scoliosis. They are used in two ways in scoliosis patients — either in growing children to try to guide the growth of the spine or in the patient with an established curve to relieve fatigue or pain.

In the former group, the most well-known brace is the Milwaukee brace. Many revisions within the past 15 years have resulted in lighter, better fitting, cooler and more cosmetic braces (Fig. 11).

For curves in the lumbar spine, low profile braces which do not utilize the metal uprights or neck ring can be used. These are obviously more cosmetic and are just as effective as the Milwaukee brace for certain patients (Fig. 12).

Though formerly it was thought that these braces could correct spinal curves like orthodontics straighten teeth, we now know that this is not true. Braces can be used only for patients with curves in a rather narrow range of severity (20° - 30°) and only when these curves are discovered when there is substantial longitudinal growth re-

maintaining (ages 6 to 12). If the curve is too severe or too rigid or the patient too skeletally mature, braces cannot be successfully used to guide growth.

Whichever brace is selected, it must be adjusted until proper fit and curve correction in the brace is achieved. This is generally worn full time to try to guide the remaining growth of the spine. There is no fixed length of time the brace is used. This depends on the age and the maturity of the patient and the severity, flexibility and location of the curve.

Generally, the use of the brace results in some correction of the curve when the brace is being used but some loss or correction after it is removed. Thus, the net benefit to the patient is preventing worsening of the curve during the time the brace is worn.

A number of recent observations on the natural history of developing scoliosis have also changed our approach to spinal bracing.

It was taught until recently that worsening of spinal curvatures generally ceased at the completion of skeletal growth. This is not true. While an occasional curve does stabilize at the age of 17 or 18, most do not stabilize until age 22 to 25 and some continue to progress well into adult life. The factors controlling this tendency are unknown. The knowledge that many curves will continue to progress beyond the teenage years also affects decisions about bracing.⁹

SURGICAL TREATMENT OF SCOLIOSIS

For adults or children with curves which cannot be managed conservatively, a variety of proven surgical techniques are available.

The goals of surgical treatment generally are to reduce deformity, protect the cardiopulmonary system and spinal cord, provide stability and balance and minimize later back pain.

Individual goals depend on the basic spinal deformity, the etiology and the general health and age.

Four basic types of surgical intervention exist for treatment of spinal deformity as follows:

1. Harrington instrumentation and spinal fusion
2. Two-stage spinal reconstruction
3. Anterior and posterior instrumentation with or without vertebral body resection
4. Anterior body excision and grafting for kyphosis with or without instrumentation

Each of these operations realigns the spine by varying methods, but each one relies on subsequent healing of a spinal fusion for final stability. For each technique, therefore, six to 12 months in a snug ambulatory body brace is necessary for healing and maturation of the spinal fusion.

All of these procedures are done using intraoperative spinal cord monitoring to continuously assess spinal cord function as the procedure proceeds.¹⁰

Fig. 9 (Left) This 10-year-old girl was identified at age four as having the hemivertebra of the upper sacrum. This congenitally misshapen vertebra allows the entire spine to be displaced to the left so that the entire spine is unbalanced in relation to the pelvis. (Right) Surgical resection of the hemivertebra with a two-stage procedure has allowed excision of the hemivertebra with realignment of the spine and an improved balance of the entire trunk.

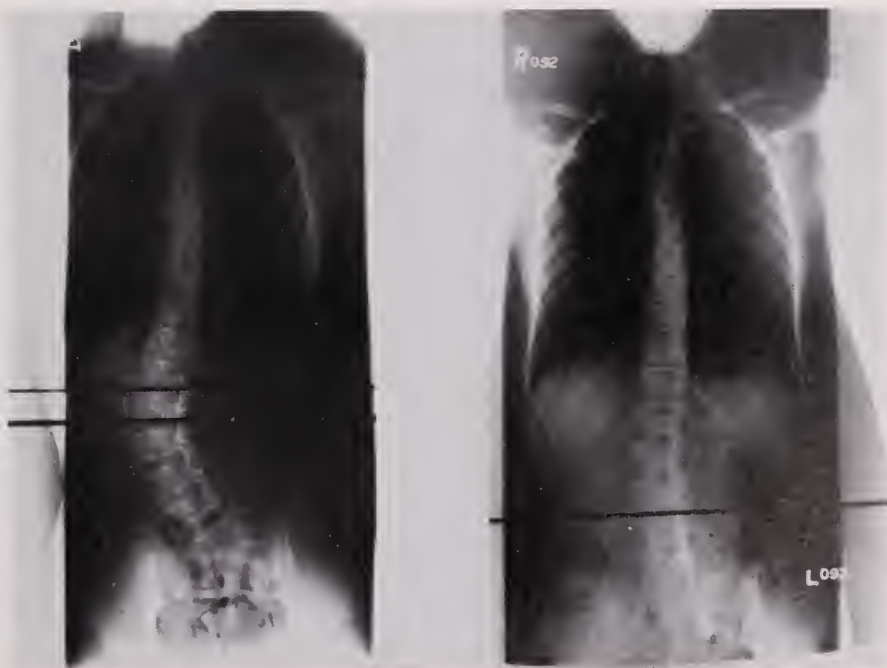




Fig. 10 Paralytic scoliosis, like in this 8-year-old boy with traumatic paraplegia, can cause particularly severe problems with trunk balance. Note that the boy is supporting himself with his hands and is actually sitting on his right buttock. The left buttock is off the table and his shoulders and upper trunk are badly balanced in relation to his buttocks.

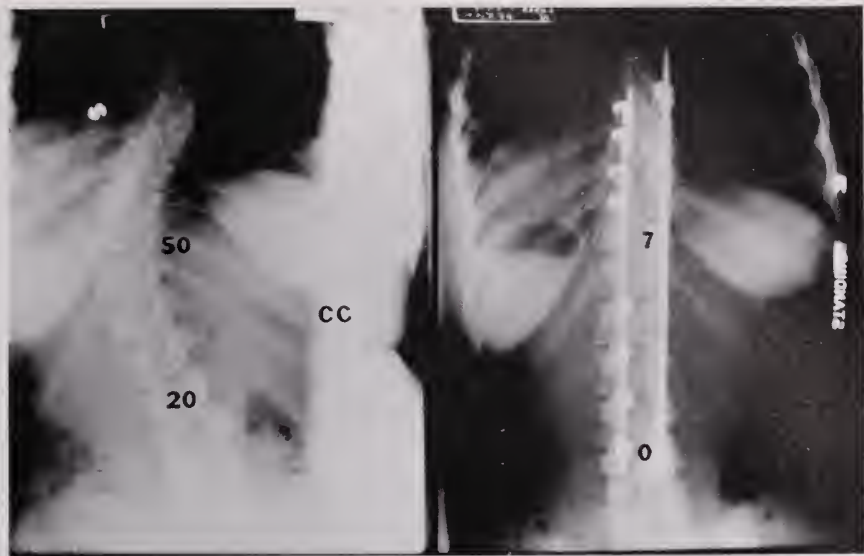


Fig. 11 The Milwaukee brace is the most commonly used device for conservative treatment of curves before growth is finished. Cooler, lighter materials now can be used to make the brace more cosmetically appealing and effective.



Fig. 12 (Left and right) Low profile braces without the superstructure and neck ring can be used when curves exist in the lower thoracic or lumbar spine.

Fig. 13 (Left) Surgical correction of more severe curves can achieve gratifying correction if the spine is still flexible when the curve is identified. (Right) The use of a distraction rod on the concave side of the curve and the compression system on the convex side gives optimum correction and internal fixation to the spine.



HARRINGTON INSTRUMENTATION AND POSTERIOR SPINAL FUSION¹¹

The Harrington spinal instrumentation system uses two stainless steel rods. A concave distraction rod and a convex compression rod span can straighten a curve or curves (Fig. 13 & 14). This is the most common type of surgery necessary for children or adults and is used in curves which show enough flexibility to achieve acceptable correction of the curve by a single stage.

This type of surgery is selected for patients with flexible kyphosis as well as flexible scoliosis.

TWO-STAGE SPINE RECONSTRUCTION¹²

In patients whose spine deformities are rigidly established and which do not straighten acceptably, a staged reconstruction is necessary. At the first stage, portions of the anterior column of the spine (vertebral bodies or discs) are removed through either transthoracic, retroperitoneal or combined approaches. Three weeks later, the posterior portions of the involved segments are removed and the spine is realigned into an acceptable position and then stabilized and fused with Harrington rods (Fig. 10-B).

These patients are log-rolled in bed for two to three months in a brace before ambulating to allow preliminary healing of the spine.

ANTERIOR AND POSTERIOR INSTRUMENTATION WITH OR WITHOUT RESECTION¹³

Patients with paralytic disorders (cerebral palsy, traumatic paraplegia) many times require more internal fixation than the single posterior instrumentation to achieve and maintain the realigned position of the spine for the subsequent

spinal fusion.

These patients also require a staged approach. However, in the first stage after appropriate wedges are removed from the spine, vertebral bodies are instrumented and realigned with a screw, cable and staple system (Dwyer cable) to provide additional correction and internal fixation. The second stage three weeks later is used for applying the Harrington instruments and doing the posterior fusion in the traditional manner.

These patients also generally need a preliminary period of bed rest before being ambulatory in the body brace.

ANTERIOR RESECTION AND GRAFTING FOR KYPHOSIS¹⁴

Patients with kyphosis deformity, whether on the basis of congenital deformity, postfracture deformity, pyogenic or tuberculous infection or Scheurmann's disease, generally require some type of strut graft between the vertebral bodies to maintain the realigned position once adequate correction of the deformity is achieved. These struts are generally either fibula, rib or iliac crest.

Some of these patients require only the anterior stage to achieve stabilization of their improved deformity and some require a second stage for further realignment with Harrington rods and posterior fusion. All require a period of bed rest postoperatively before being up in their spine brace.

Thus, although certain procedures require more patience and forbearance on the part of the patient and family than others, standardized surgical techniques do exist for the realignment and reconstruction of spines which were previously

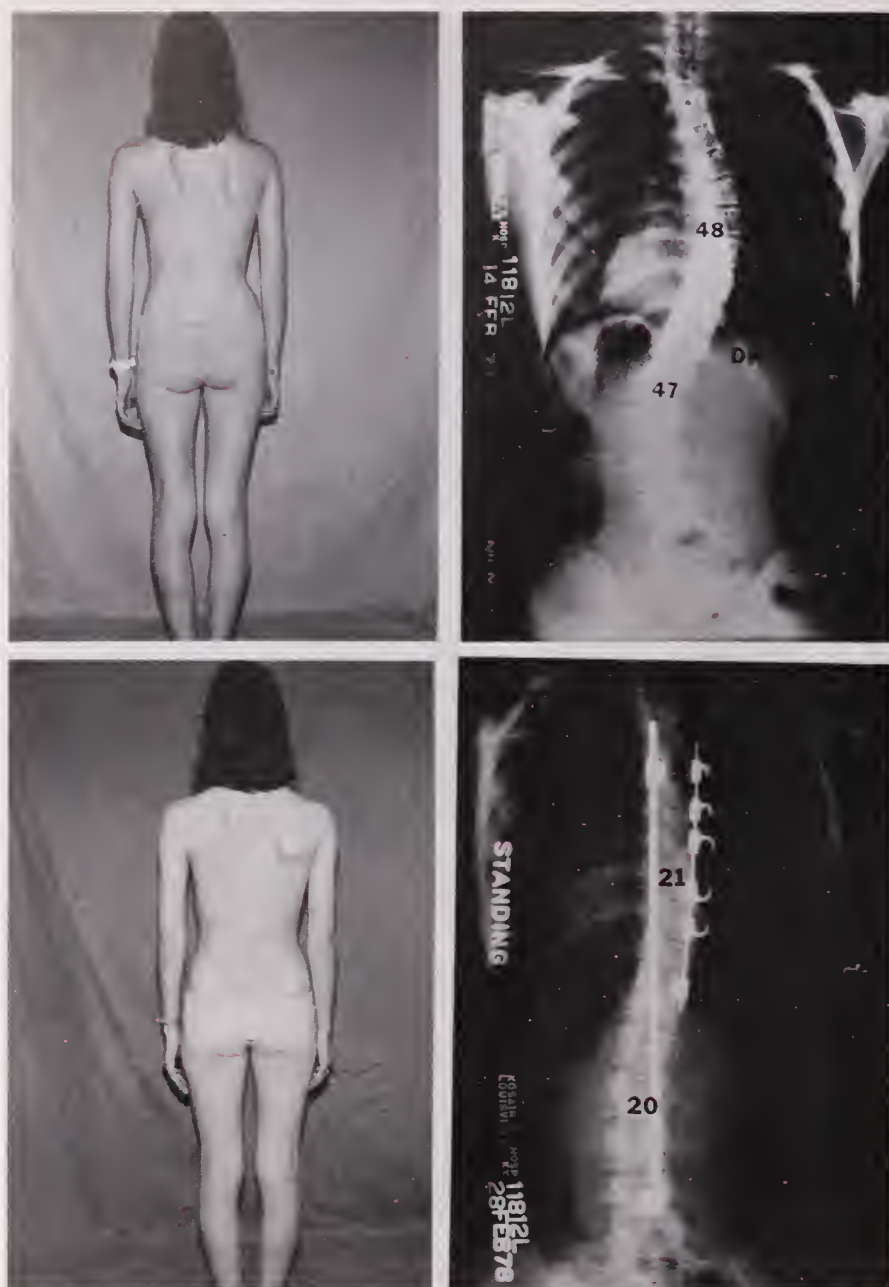


Fig. 14 *Double Primary Scoliosis.* (Above) The spine in this situation is well balanced and there is deformity both in the shoulders and shoulder blades as well as in the flanks. On forward bending, the asymmetry of the rib cage is obvious and the x-ray shows a balanced spine but a reverse "S" curve. (Below) Surgical correction maintains spinal balance, improves the amount of curvature and protects the spine against later deterioration with growth as well as with later problems with disc degeneration as aging proceeds. The final result is a balanced spine with minimal deformity and good cosmetic appearance.

considered irreparably distorted. Patients do not have to live with the disfigurements and functional handicaps which spinal deformity once imposed.

ADULT SCOLIOSIS¹⁵

The basic understanding of scoliosis and the treatment capability for scoliotic patients have advanced markedly in the past ten years and many patients who were not treatable ten to 20 years ago are now treatable. Many current adults with scoliosis or kyphosis were told that scoliosis is not a serious problem and that the curve would not progress past skeletal maturity. This was true for

many of them, and many are living quite well with smaller or even rather marked curvatures with surprisingly little disability and have made remarkable adjustments to the deformity.

For the many patients who have curves which have increased to an unacceptable deformity or who have back pain (Fig. 15), the same surgical procedures enumerated above have been and can be performed for adults whose deformities have been neglected. General physical status, age and functional demands and the postoperative course are all considered with the patient before any decision regarding surgery is made.

With these preoperative preparations, how-



Fig. 15 (Left) X-rays of this 46-year-old woman show the changes associated with aging with a neglected idiopathic scoliosis. Translational motion between L-3 and L-4 (lateral displacement) is marked. Spurs and lippling and disc degeneration are obvious in the lower lumbar levels. (Right) Surgical treatment can achieve gratifying correction of the deformity and relieve the associated disabling back pain.

ever, just as gratifying surgical results are possible in adults as in children and teenagers with similar problems.

SUMMARY

Thus, significant recent advances have occurred to the benefit of patients with spinal deformity.

Basic knowledge of the incidence and natural history has improved markedly in the past ten years. The development of statewide school screening surveys will allow the early identification of developing scoliotic and kyphotic deformities so that spinal bracing can be used early to prevent the development of severe deformities.

Recent long-term studies of the efficiency of spinal braces for scoliosis and kyphosis have refined the indications for their use, have allowed the development of new types of braces and have clarified expectations that are reasonable from their use.

In the past ten years, surgical techniques have been developed and improved which have made possible the correction and stabilization of deformities which previously were uncorrectable.

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Replantation of Amputated Hand Parts

(Continued from page 123)

finger in the past. However, the bone and tendon were intact. The patient has regained 4 mm two point discrimination. Her finger appears normal with full flexion and extension.

In the fourth case, the finger may have been able to survive on the dorsal vessels but probably would have gone on to necrosis. By revascularization, we improved its chances of survival. Also, we feel that this will decrease its intolerance of cold.

In addition to these more obvious cases, we have also repaired vessels even when the repairs did not appear necessary for survival of the part. Our impression, again, has been that this can significantly decrease post-injury cold intolerance.

SUMMARY

Replantation of hands and fingers has become routine. Current concepts are concerned primar-

ily with replantation from a functional standpoint rather than simple survival. Completely amputated parts should be placed in a plastic bag and packed in ice. Incompletely amputated parts should be cooled by ice packs. The patient should be evaluated. Then, if condition permits, the patient should be transferred without delay to a center where microsurgery is done. With present techniques, one can expect good results in 80% of the attempted replants.

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Physician-Nurse Practitioner Teams For Primary Care in Missouri

IN RECENT YEARS, the team relationship of a nurse practitioner and a physician practicing together has become increasingly common. Nurse-physician collaboration may enhance both the scope and the volume of primary care services. Such a relationship may offer particularly important benefits to health manpower shortage areas.

The term "expanded role" is frequently used to describe a variety of roles assumed by nurses in health care. In reality, expanded roles are not new. For example, the nurse anesthetist has been an accepted health professional in our hospitals for many years. Nurses also have assumed broad responsibilities in primary care. The public health nurse, for example, has served patients in their homes by providing nursing care, physical assessment and medical care in collaboration with the patient's physician.

The nurse's role is evolving as is the physician's. This evolution relates not only to manpower needs but also to rapidly progressing knowledge and technology. Not too many years ago, the physician obtained blood samples and took blood pressure, feeling it was a "medical responsibility." Today, most physicians are fully supportive of specially trained coronary care nurses who interpret cardiac rhythms and provide antiarrhythmia therapy, utilizing standing orders. In all expanded roles, the nurse provides the "caring" and "educational" functions which characterize nursing. Under direction of the physician, she also provides services which can be described as "medical care."

What is new today in the arena of the expanded role of the nurse is the development of specific educational programs to prepare registered nurses for primary care responsibilities. The quality of these programs is being monitored by accreditation procedures and certifying examinations are provided to assist in assuring competence of graduates.

The term "nurse practitioner" is a product of

the last decade. It describes a nurse who has completed a specialized educational program which will permit her to work with the physician in providing care. The educational focus of most nurse practitioner programs is primary care. First developed in 1965 as a pediatric nurse practitioner program at the University of Colorado, nurse practitioner training programs now exist in every state.

Programs are of two types. Continuing education, certificate programs generally are of one year's duration. Master's level programs provided by schools of nursing are of one- to two-year's duration. A 1975 survey conducted by the State University of New York projected that there are more than 12,000 nurse practitioners in the United States and more than 250 programs are preparing nurse practitioners in the United States.¹ In Missouri, seven programs now prepare nurses to function in expanded roles. These include programs preparing family nurse practitioners, pediatric nurse practitioners, nurse midwives, medical nurse practitioners and clinical nurse specialists.

The physician assistant is another health professional who has joined the physician in primary care by frequently assuming roles which overlap those assumed by a nurse practitioner. The educational program for the physician assistant typically has a medical orientation while that of the nurse practitioner has a nursing orientation. Few studies have compared the functions of the two. Our own experience has been with nurse practitioners. Consequently, this paper focuses upon nurse practitioner-physician collaboration.

STUDIES OF THE EFFECTIVENESS OF NURSE PRACTITIONERS

A large number of studies have been published and new studies appear almost daily.² Most suggest that the nurse practitioner working in association with a physician provides significantly increased productivity which results in high

levels of patient satisfaction and provides comparable, if not improved, levels of patient-care outcomes.

As early as 1967, Resnik and Lewis at the University of Kansas demonstrated the effectiveness of the nurse practitioner.³ In addition to patient satisfaction and cost effectiveness, there were fewer broken appointments and the quality of care was judged by the authors to have risen. Schiff, Fraser and Walters describe a study of their own practice in Colorado in 1969 involving two pediatricians and a pediatric nurse practitioner.⁴ The authors state that "having a pediatric nurse practitioner was an economic asset" and resulted in an "overall improvement in service."

Studies in New England and Hamilton, Ontario, demonstrated that a physician's practice can be increased by approximately one third by the addition of a nurse practitioner.⁵ A Rochester study found that nurse practitioners handled telephone calls for children's illnesses more carefully and defined problems better than the practicing pediatrician and a pediatric resident.⁶ A Memphis study by Runyan suggested that chronically ill patients with cardiac disease, hypertension and diabetes cared for at community clinics by nurse practitioners did better than those handled by internists through the outpatient clinics.⁷ In this study, 1,006 patients were cared for by nurse practitioners utilizing protocols and physician consultation at decentralized clinics throughout the city of Memphis and Shelby County. The control group of 489 patients were cared for at the hospital outpatient clinics by internists.

Diabetic patients cared for by nurse practitioners showed greater reductions in blood glucose levels and hypertensive patients showed greater reduction of blood pressure than patients cared for by the physicians during the two-year research period. During this period, patients cared for by nurse practitioners utilized approximately 50% fewer hospital days than in the control group cared for by internists. Interestingly enough, retrospective analysis showed that the number of days of hospital care for patients during the two years prior to the study was greater for patients subsequently assigned to nurse practitioners than for patients in the control group subsequently assigned to internists.

These are but a small portion of the studies relating to nurse practitioner effectiveness. All studies have applied to limited populations and most can be questioned on methodological

grounds. Nevertheless, the fact that most studies overwhelmingly support the effectiveness of a nurse practitioner working in collaboration with physicians cannot be overlooked.

THE MISSOURI PROGRAM

The rationale for developing a primary care program with services provided by physicians and nurse practitioners at the University of Missouri-Columbia were two-fold. First, it was felt that the shortage of physician manpower in the rural areas could be alleviated by nurse practitioners working in association with physicians. Second, it was known that primary care needs are frequently broader than pure "medical" services. These services include supportive counseling, education of patients about their illnesses, assessment of home situations, self-help care, mobilizing community resources and others — a wide variety of services for which nurses have been well educated. Working together, the physician and nurse could complement each other. Consequently, we developed a pilot program of partnerships of physicians and nurses in primary care.

Our program provides primary care to two populations — one in Columbia and one in Fulton. The two practices combined handle approximately 25,000 ambulatory patient visits annually. The system is designed to permit each family to identify a physician and a nurse practitioner as its primary providers. The physicians may be faculty of the department or resident physicians working under the supervision of faculty members.

Each physician-nurse practitioner team develops its "procedure" through working together. Typically, each member of the partnership has tended to assume responsibilities in certain areas and to share responsibilities with the partner in other areas while recognizing that licensure confers special responsibilities to each. As with any partnership, the means of handling problems must be worked out in advance and jointly agreed upon in a setting of mutual respect and confidence. Each tends to assume greatest responsibility in his or her area of greater competence.

Typically, the nurse is especially adept at health education, well-child care, prenatal care, self-help care in chronic illness and supportive, psychological and social care. Thus, she assumes the major responsibility in these areas by preparing the pregnant woman for delivery, assisting the anxious mother with her newborn infant, provid-

ing support for the depressed elderly patient and assisting the family with a bedfast patient at home. At the same time, the physician's orientation toward diagnosis of complex medical problems and toward medical therapeutics leads him naturally into these areas. They jointly share in the care of patients with common episodic and chronic illnesses. Thus, either may see the patient with a respiratory infection, cystitis or hypertension. Since the physician is more frequently out of the office, the nurse practitioner handles many of the telephone calls. Such complementary roles lend themselves to improving continuity of patient care.

Ultimate responsibility for medical care lies with the physician who is licensed to provide this care. Therefore, medical care delivered by the nurse practitioner is authorized by and provided under the supervision of the physician. Conversely, ultimate responsibility for nursing care lies with the nurse who is licensed to provide this care. The management of medical and nursing problems is "codified" through development of mutually agreed upon protocols which include both medical and nursing components for each problem. The development of protocols reflects joint decision making in the management of ambulatory problems. The medical component of the protocol can be viewed as analogous to the "physician's standing orders" so often used in the hospital. Protocols for the office visit may indicate that penicillin should be used for streptococcal pharyngitis just as the physician's hospital standing coronary-care orders may recommend use of lidocaine for extrasystoles. The nursing component of the protocol provides specific educational programs for patients with agreed upon preventive and health maintenance aspects. The protocols serve as a tool for continued communication between the nurse practitioner and physician regarding patient care. A system of chart review with signatures by each individual indicates plans are indeed followed. Regular team conferences allow for continued evaluation of care.

Our experience suggests that the nurse practitioner through day-to-day experience becomes as adept at identifying acute otitis as the physician. The nursing orientation expands the focus of the physician while the medical knowledge of the physician enhances the skills of the nurse practitioner. As colleagues, the physician and nurse practitioner jointly assume responsibility and, consequently, also liability for the range of services that are being provided. As with any

In 1972, the family medicine program of the University of Missouri-Columbia began to provide primary care by utilizing teams of family physicians and nurse practitioners. This article reviews this experience, provides a brief review of national studies assessing nurse practitioner effectiveness, reviews issues of accountability and responsibility and summarizes current legal, malpractice and reimbursement issues of nurse practitioners. While this program has evolved in a teaching setting, the experience gained may be helpful to those in private practice as well.

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EDITORS NOTE: This article presents one point of view of a complex subject. The Editorial Board of MISSOURI MEDICINE reviewed the manuscript. The majority was in favor of publication.

partnership, there must be mutual trust and respect. There must be common goals in patient care. Relationships only evolve over time. The nurse and physician must be able to communicate and work together. Not every physician or nurse practitioner can function in this role. Where agreement does not occur, the partnership must be disbanded.

Our Missouri program is in a setting in which physicians and nurse practitioners work together in the same location. In many other states, a large number of models have evolved where nurse practitioners using protocols function in satellite clinics remote from the home office where the physician is located. Responsibility and liability for services rendered are shared jointly just as when the two are working in the same location. In a typical arrangement, the physician visits the satellite clinics on a regular basis, receives multiple referrals from the nurse practitioner and is in close telephone contact with the nurse practitioner at all times. These particular models have been used to provide care in areas previously devoid of any local services.

LEGAL CONSIDERATIONS

While Missouri statutes provide for the licensing of nurses, there currently are no statutes or regulations referring specifically to nurse practitioners. Similarly, there are no statutes or regu-

lations concerning the nurse anesthetist, the coronary care nurse or the public health nurse. This is not surprising since no statutes or regulations exist within medicine which define the scope of practice of physicians in the various specialties. The scope of the physician's practice is defined by his perceived competencies, by peer pressures and by hospital staff privileges.

In response to the generally broadening scope of nursing practice, the Missouri Legislature passed a revised Nursing Practice Act in 1976. This act defines professional nursing as follows:

"The performance for compensation of any act which requires substantial education, judgment and skills based on knowledge and application of the principles derived from the biological, physical and social and nursing sciences including but not limited to:

- a) responsibility for the teaching of health care and prevention of illness to the patient and family;
- b) assessment, nursing diagnosis, nursing care and counsel of patients who are ill, injured or expecting alterations in the normal process; or
- c) the administration of medication and treatment as prescribed by a person licensed in this state to prescribe such medications and treatment;
- d) the coordination and assistance of delivery of the plan of health care with all members of the health team;
- e) the teaching and supervision of other persons in the performance of the foregoing."

Laws more broadly defining the scope of nursing practice have now been passed in 40 states. The majority of the remaining states report activity to accomplish the same. In addition, some states have statutes, rules and regulations defining qualifications of and scope of function of nurse practitioners. Others provide for registration of nurse practitioner-physician teams as a unit.

In some states, amendments to the Medical Practice Act provide specific authority for the physician to delegate functions to nurse practitioners and physician assistants. We have no such delegatory clause in Missouri. The Medical Practice Act does recognize that nursing practice lies under the jurisdiction of the Nursing Practice Act.

In this setting of ambiguity, the Missouri Department of Social Services requested an opinion

from the Attorney General regarding the legality in Missouri of nurse practitioners or physician assistants practicing in clinics remote from the supervising physician. This opinion was sought because Public Law 95-210, "The Rural Health Clinic Act" passed by Congress in 1977, provided reimbursement for services of nurse practitioners and physician assistants working in such sites in states where these activities are legally permitted. Opinion No. 32 dated January 2, 1980 stated the following:

"Registered professional nurses, under Chapter 335, RSMo, do not have the authority to engage in primary health care that includes diagnosis and treatment of human illness, injury or infirmity and administration of medications under general rather than direct physician guidance and supervision. Therefore, registered professional nurses cannot perform all of the duties and functions of "nurse practitioners" provided for in the Rural Health Clinic Services Act, Pub. L. 95-210."

On Jan. 17, 1980, in a clarifying statement, the Attorney General further stated:

"(3) A registered professional nurse may act on the orders of a physician with respect to a particular patient even though the physician is not present. In this respect, we define "direct supervision" as including those situations where such a nurse acts on the physician's instructions with respect to a particular patient although not in the physician's presence; and

"(4) Opinion No. 32 does *not* hold that there are *no* rural health clinic functions which a nurse in that setting may perform. To the contrary, there clearly are functions which the nurse may perform alone, such as have been historically so performed by the nursing profession."

Thus, the Attorney General's interpretation of current statutes suggests that nurse practitioner activities in the medical component of primary care delivery must be under the direct supervision of a physician.

A fundamental question frequently raised is whether or not the nurse practitioner working in association with a physician is in reality practicing medicine. By the same logic, one might also construe that the coronary care nurse "practices medicine" as she administers lidocaine to a patient with an arrhythmia. However, the nurse in this activity might also be construed as assessing and administering medicine and treatment as

prescribed by a person licensed to prescribe such treatment. These functions are included in the scope of nursing practice permitted by the Nursing Practice Act. It appears that the function of the nurse practitioner working in collaboration with a physician in primary care is similarly covered by the Nursing Practice Act.

This article focuses upon the collaborative practice of nurse practitioners and physicians because it is the model which we feel has the most to offer the public and with which we have had experience. Another model, that of a nurse practicing alone without association with a physician, is of growing concern for many physicians. This concern is a potential barrier to facilitating development of nurse practitioner-physician team practices. Many physicians fear that the independently practicing nurse will practice medicine. The Nursing Practice Act does not limit independent practice of nursing by a registered nurse. Boundaries between nursing and medicine are not easily defined. As extremes, all can agree that providing health education and assisting the bed-fast patient in the home is within the scope of nursing and that prescribing a narcotic is outside the scope of nursing. However, there may be marked disagreement as to whether auscultation of the chest, when done by an independently practicing nurse, is "nursing assessment" or "medical practice."

For many reasons, it seems unlikely that large numbers of nurses will seek to enter independent practice. The tradition of nursing has been to work in organizations or institutions. Nursing as a profession has long fostered more comprehensive services than an independently practicing nurse can provide. The Nursing Practice Act does not provide opportunity for nurses to provide medical management of illness independent of the physician and without collaboration with the physician.

THIRD PARTY REIMBURSEMENT

Issues of reimbursement are similar for nurse practitioners and physician assistants. Under Medicare, nurse practitioners and physician assistants employed by hospitals, nursing homes or other institutions have salaries and expenses included in the cost formula for reimbursement to the institutions under Part A of Medicare.

On the other hand, the status of reimbursement of nurse practitioners and physician assistants on a fee for service basis under Part B of Medicare remains unclear. Medicare Part B

legislation provides no provision for direct support of physician assistants and nurse practitioners. Thus, Medicare Part B Manual of Regulations (2050.3) states, "The only basis for covering their (nurse practitioner and physician assistants) services under Part B would be a service furnished incident to the physician's professional services." These services must be services "commonly furnished" in the physician's office such as taking blood pressure and giving injections. They indicate that performance by the nurse practitioner of services which have traditionally been reserved to physicians *cannot* be covered under Part B.

The physician, on the other hand, can be reimbursed for his personal services if he provides a personally identifiable "physician service," such as personally seeing the patient at the time of the visit and making an independent evaluation of the patient's condition and the course of treatment recommended by the nurse practitioner and physician assistant. In addition, Section 2050.2 indicates that physicians may charge for professional services provided by auxiliary personnel in which there is direct physician supervision. Thus, the physician may employ a physical therapist and include the charges for such services in his own bills if there is direct supervision by the physician.

From the above, it is clear that the physician must provide direct supervision of the nurse practitioner to be reimbursed by Medicare. This personal supervision can be attested to by the physician's signature on the note in the patient's chart on each office visit. Even in the setting of direct supervision, it is possible that a service provided by a nurse practitioner or a physician assistant, such as a physical examination (a function usually performed by a physician), might be disallowed by an auditor. However, it would seem likely that such an auditor's decision would be rather arbitrary inasmuch as there has been a clear cut national intent to support the functions of the nurse practitioner and physician assistant.

Congress has supported the nurse practitioner and physician assistant concept in a number of ways. It partially finances some educational programs and also has funded delivery systems in underserved areas which utilize physician assistants and nurse practitioners. The Rural Health Clinic Bill, Public Law 95-210 passed in 1977, provides Medicare and Medicaid reimbursement to rural health care clinics for services provided by nurse practitioners and physician assistants who are working under physician supervision, either with the physician on site or at a remote site. This

law applies only to federally designated physician-shortage areas in states permitting these practice models. As stated earlier, the Attorney General's opinion in Missouri is that there is no statutory basis for remote site nurse practitioner practice. Consequently, Missouri is not eligible for this type of reimbursement. As of Sept., 1978, 209 rural health clinics were participating. North Carolina has 38, Tennessee, 38, New Mexico, 14, North Dakota, 11 and California, 10.

Medicaid reimbursement for nurse practitioner services now occurs in 21 states. Eight states have no explicit policy but acknowledge that physicians in their state do bill in their own names for nurse practitioners and physician assistant services. It is clear that similar situations exist in many states. Some states, on the other hand, have explicit policies prohibiting payment for nurse practitioners and physician assistant services.

In summary, it is clearly the intent of the federal government to support nurse practitioner and physician assistant roles. Progress has occurred in third party reimbursement. However, Medicare and Medicaid statutes and regulations still pose a significant obstacle to utilization of physician assistants and nurse practitioner services. The next years are likely to bring resolution of these problems.

MALPRACTICE CONSIDERATIONS

Inasmuch as the nurse practitioner is a licensed health professional practicing her own profession, it can be argued that she is solely liable for her own acts. However, the physician typically employs the nurse practitioner, is responsible for medical services provided and, as an individual with financial resources, is likely to be a codefendant. The above is all conjectural because we have been unable to find data concerning suits against nurse practitioners and the physicians with whom they work.

The Insurance Service Office, which serves all insurance companies, and the National Association of Insurance Commissioners in Milwaukee both maintain records of malpractice litigation. These systems do not permit retrieval of information to define whether nurse practitioners or the physicians with whom they work have been involved in a suit. The American Nurses Association has collected information from insurance companies covering nurse practitioners and, to date, has no record of a malpractice suit involving nurse practitioners. The McGinnis Insurance Company

provides malpractice coverage for all nurses, including nurse practitioners for an annual premium of \$25 for \$600,000 coverage. Such a low premium suggests low risk. On the other hand, a few insurance companies providing malpractice coverage for physicians have increased premiums when the physician delivers care in association with a nurse practitioner.

CONCLUSION

The University of Missouri-Columbia Family Medicine Program has had seven years' experience in provision of primary care by teams of physicians and nurse practitioners. The physicians, both faculty and resident physicians, endorse the quality of health care provided by the nurse practitioners with whom they work. More importantly to the patients, the scope of services has been broadened by addition of nursing skills to the medical staff.

As with any evolving activity, ambiguities exist concerning the legal and reimbursement status of the nurse practitioner within Missouri and across the nation. It may well be that legal issues will be clarified through further legislation or regulatory activities or both. Alternatively, accepted patterns of practice may well evolve as a result of successful experiences of physician-nurse practitioner teams operating under existing legislation throughout the state.

The key to effective nurse practitioner-physician collaboration lies in a willingness and ability to make patient care decisions jointly. Both team members only have to recognize that the nurse practitioner has one set of expertise and the physician has another set of expertise. The nurse practitioner-physician team offers an attractive and potentially effective mechanism for bringing both sets of expertise to more patients.

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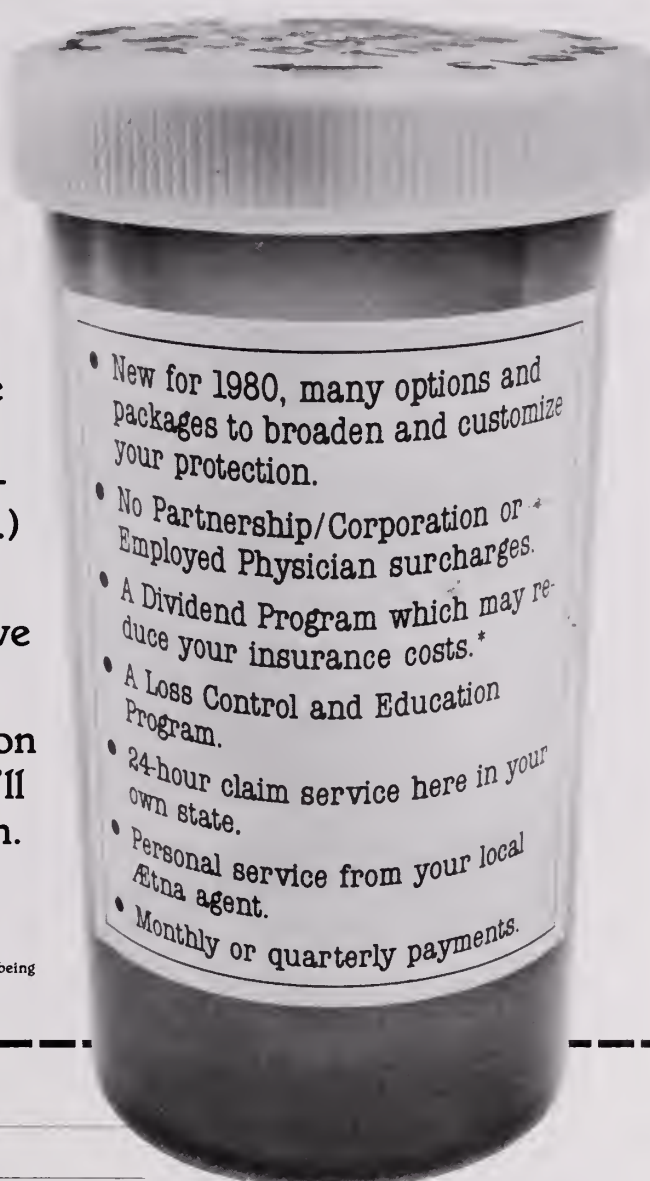
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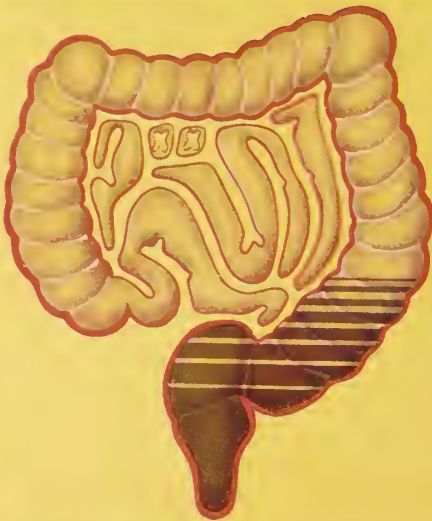
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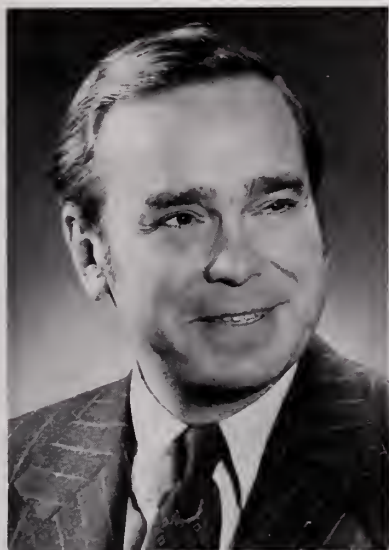
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Attn: Marketing Services

President's Message

As this is being written, the meeting of the Medical-Nursing Liaison Committee on March 12 has not yet been held. That meeting was planned to discuss rural health, nurse practitioners and physicians, and current legislation in the Missouri General Assembly. On the committee are the Executive Committee of the Council of MSMA and representatives from the nursing profession. All three of the above agenda items are interrelated and are of concern not only to nursing organizations but, also, to the University of Missouri-Columbia faculty members who are helping develop "nurse practitioners" and their counterparts at the University of Missouri-Kansas City, who are doing likewise.



Andrew McCanse, M.D.

At the Annual Session of the House of Delegates in 1979, the MSMA adopted a resolution which supported the idea that those who practice medicine should be licensed physicians. On January 2 of this year, the Attorney General of Missouri issued Opinion No. 32 that registered professional nurses, under their practice act, do not have the authority to engage in primary health care that includes diagnosis and treatment of human illness, injury or infirmity and administration of medications under general rather than direct physician guidance and supervision. The opinion had been requested by the director of the Department of Social Services of Missouri to find out whether that department could administer funds from HEW for the payment of services rendered by rural health clinics under a federal law, and still be consistent with Missouri law governing such services.

At the same time, the State Board of Registration for the Healing Arts issued a proposed rule in the Missouri Register which defined the practice of medicine. The definition was clearly drawn to help the Board deal with the inappropriate practices of some non-physicians who are diagnosing and treating illness, injury and infirmity.

An addendum to Opinion No. 32 was made on January 17 by the Attorney General in response to what he called the "unwarranted misinterpretation" of his original opinion. That addendum confirmed the traditional authority of a registered professional nurse to perform customary and necessary functions in

handling emergency situations, that a nurse may act on a physician's instructions with respect to a particular patient although not in the physician's presence. It further said that he had *not* held that there are *no* rural health clinic functions which a nurse in that setting may perform. "To the contrary, there clearly are functions which the nurse may perform alone, such as have been historically so performed by the nursing profession."

Last September, the recommendations from the State Advisory Committee on Nursing and Nursing Education was presented by the Missouri Department of Higher Education and the Missouri Nurses Association. In addition to calling for increased funding for all generic and graduate nursing programs, the recommendations point toward phasing out the non-degree hospital programs in favor of affiliating them with degree programs. The "generic" student definition given with the recommendations is somewhat nebulous to me, but it apparently has some relation to a baccalaureate program.

The recommendations say that "Increased consumer demands for health maintenance and quality individualized nursing care have changed the role of the nurse. Nurses will be expected to contribute to health needs of individuals, families, groups and communities. . . ." The recommendations deal primarily with upgrading nursing education and not with another of the objectives to be considered in the future, namely to alleviate maldistribution of providers of nursing care.

It is hard to take issue with the intent to upgrade nursing education. At the same time, the role of hospital nursing schools in providing nurses for hospitalized patients cannot be overemphasized. Although the health planners decry the "excess" hospital beds, particularly in the urban areas, the inability to staff some of these beds because of a shortage of nurses has not received wide notice. That is where the maldistribution problem with nurses is most severe, in the hospitals. Furthermore, the baccalaureate nurses have not made much of a dent in this shortage, and it is hard to see the situation changing.

In addition, there is no guarantee that the so-called independent nurse practitioners are going to set up practice in an isolated rural area even if the law does allow expansion of their practice. Given the choice, a fee-for-service nurse practitioner will necessarily locate in an area where the volume of patients will assure an income to support the practitioner. If the nurse is not on a fee-for-service basis, then some sort of governmental funding will be needed to maintain his or her interest.

Physicians are sometimes accused of being in a battle over territorial establishment. The matter goes far deeper when there is talk of the establishment of a different level of care of the ill and injured. Nurses play a vitally important role in the care of patients and are rightfully expanding their role in health education and in specialized nursing roles under the guidance of physicians. Physicians of Missouri stand ready to assist them in providing the best possible care to our patients.



MSMA Auxiliary

*Honour a physician with the honour due
onto him . . . for the Lord hath created
him. — ECCLESIASTICUS*

The official designation of Doctor's Day was established in 1935 to commemorate the first use of ether anesthesia by Dr. Crawford W. Long of Georgia on March 30, 1942. Doctor's Day was initiated by the Southern Medical Association Auxiliary. The date provided an ideal opportunity for acknowledging the immeasurable contributions of America's physicians.



Mrs. Rudy Ruhling
President

What began as a simple ceremony of giving a red carnation has been extended to include a wide variety of programs designed to express community appreciation and provide positive public relations value.

On this special day, there are dinner celebrations by physicians and spouses and dinners honoring retired physicians. Trees are planted in commemoration of physicians. Medical and nursing scholarships are awarded. Each auxiliary has a special way of remembering our good doctors on March 30.

Close communication between the medical society and auxiliary is critical to the achievement of a successful observance. As we pay tribute to our spouses, we translate a day of honor into a time of productivity.

March also is the time to start planning for the MSMA Convention on April 17-20 at the Crown Center Hotel in Kansas City. Please accept our invitation to attend and enjoy the MSMA Auxiliary's Second AMA-ERF/MSMA Benefit Auction at 6:30 PM on Thursday, April 17. We need your items to be auctioned. Remember that the items that look good to you are the best.

Hurry . . . before time is going, going, gone!

See you all in Kansas City!

Annual
MEDICAL / LABORATORY EQUIPMENT
 and
OFFICE FURNITURE SHOW

for
 Physicians, Residents, Interns, Nurses, Students
 Friday Saturday
 March 28 March 29
 5 P.M. - 10 P.M. 10 A.M. - 10 P.M.

Cocktails, Hors d'oeuvres
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*Preliminary Program***MISSOURI STATE MEDICAL ASSOCIATION****122nd Annual Session****Crown Center Hotel, Kansas City****April 17-20, 1980****Thursday, April 17**

- 8:00 AM Registration of Delegates, Century Foyer.
 10:30 AM **House of Delegates, Opening Session.** Century Room.
 1:00 PM Reference Committee Meetings.
 6:30 PM Missouri State Surgical Society Board of Directors Cocktails (Governors Board Room)
 and Dinner (Senators Board Room).
 6:30 PM MSMA Auxiliary Auction. Centennial "B" Room.

Friday, April 18

- 7:00 AM District Breakfasts — 1st Councilor District, Ambassadors Board Room.
 2nd Councilor District, Trustees Board Room.
 5th Councilor District, Governors Board Room.
 6th Councilor District, Officers Board Room.
 8th Councilor District, Congressional Board Room.
 9th Councilor District, Executive Board Room.
 10th Councilor District, Senators Board Room.
- 7:00 AM Fun Run.
 7:15-
 11:30 AM Complimentary Coffee and Rolls. Century Foyer.
 8:00 AM Registration. Century Foyer.
 8:30 AM Missouri University Board of Directors Breakfast and Meeting. Westport Room.
 9:00-
 10:30 AM **General Session — "Physician, Heal Thyself."** Century Room.
 Introduction: Andrew McCause, M.D., Kansas City, MSMA President.
Greetings from the AMA, Robert B. Hunter, M.D., Sedro Woolley, Washington,
 President-Elect, American Medical Association.
 Speaker: Gordon H. Deckert, M.D., Oklahoma City, Okla., Professor and Head,
 Department of Psychiatry & Behavioral Sciences, University of Oklahoma.
- 11:00 AM-
 12:30 PM **Scientific Session** Sponsored by the Missouri State Orthopedic Association. Shawnee
 Room.
 11:00-
 11:40 "Common Foot Problems in Athletes," Lawrence G. Evans, Jr., M.D., St.
 Louis, Assistant Professor of Orthopedic Surgery, St. Louis University
 School of Medicine.
 11:40-
 12:20 "Common Hand Injuries in Athletes," Barry Gainor, M.D., Columbia, Assist-
 ant Professor of Orthopedic Surgery, University of Missouri School of
 Medicine.
 12:20-
 12:30 Discussion from the floor.
 Moderator: Robert E. Burdge, M.D., St. Louis.
- 11:00 AM-
 12:30 PM **"Up-Date of Clinical Trials: National Surgical Adjuvant Breast Project."** Indepen-
 dence Room.
 Speakers: Paul G. Koontz, Jr., M.D., Kansas City, Clinical Professor of Surgery,
 University of Missouri Kansas City School of Medicine and Director of
 Surgical Residency Program, St. Luke's Hospital.
 Karl H. Hanson, Jr., M.D., Kansas City, Private Practice (Hematology-
 Oncology).
 Moderator: Daniel J. Lauer, M.D., Kansas City.
 Sponsored by the American Cancer Society, Missouri Division, Inc.
- 11:00 AM-
 12:30 PM **Atopic Dermatitis**, Mission Room.
 Speaker: E. Wm. Rosenberg, M.D., Memphis, Tenn., Professor of Dermatology,
 University of Tennessee.

Moderators: Larry E. Millikan, M.D., Columbia
Gary A. Dyer, M.D., St. Joseph
Sponsored by the Missouri Dermatological Society.

11:00 AM-

12:30 PM "1980 Update in Clinical Medicine." Sponsored by the Missouri Society of Internal Medicine. Roanoke Room.

11:00-

11:30 "Outpatient Management of Asthma," Susan Pingleton, M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine.

11:30-

12:00 "Newer Concepts in Hodgkin's Disease," Adolphus C. Favors, Jr., M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine

12:00-

12:30 "Management of Diabetic Ketoacidosis — Selected Aspects," Stephen Hamburger, M.D., Kansas City, Assistant Professor of Medicine, University of Missouri School of Medicine.

Moderator: Stephen Hamburger, M.D., Kansas City.

11:00 AM-

12:30 PM Rehabilitation of the Cardiac Patient, Penn Valley Room.

Speaker: John Naughton, M.D., Buffalo, NY, Dean, School of Medicine, State University of New York at Buffalo.

Moderator: Eugene Langevin, D.O., Joplin.

Sponsored by the American Heart Association, Missouri Affiliate, Inc.

11:00 AM-

12:30 PM "Sarcoidosis: How Should It Be Diagnosed?" — Annual Charles A. Brasher Lectureship. Presidents Room.

Speaker: Richard B. Byrd, M.D., Scott Air Force Base, Ill., Colonel, U.S. Air Force; Chairperson, Department of Pulmonary Diseases, USAF Medical Center.

Moderator: Daniel L. Schlozman, M.D., Kansas City.

Sponsored by the Missouri Thoracic Society.

11:00 AM-

12:30 PM Headache: Differential Diagnosis, Management, Bio-feedback and Other Modalities, Centennial "B" Room.

Speaker: Seymour Diamond, M.D., Chicago, Ill., Adjunct Associate Professor of Neurology, The Chicago Medical School, and Director, Diamond Headache Clinic.

Sponsored by the Missouri Academy of Family Physicians.

12:30-

2:00 PM Missouri University Medical Alumni Luncheon. Century Room.

12:30 PM Missouri Thoracic Society Luncheon. Governors Board Room.

1:00 PM Missouri Psychiatric Association Business Meeting. Presidents Room.

1:00-

4:00 PM *Scientific Session* Sponsored by the Emergency Room Physicians. Penn Valley Room.

1:30 PM MOMEDICO Board Meeting, Independence Room.

2:00-

3:30 PM Headache: Differential Diagnosis, Management, Bio-feedback and Other Modalities (Continued), Centennial "B" Room.

Speaker: Seymour Diamond, M.D., Diamond Headache Clinic, Chicago, Ill.

Sponsored by the Missouri Academy of Family Physicians.

2:00-

3:30 PM *Postoperative Renal Failure — A Refresher Course for Surgeons*. Shawnee Room. Panelists: *The Pathogenesis and Diagnosis of Postoperative Renal Failure*, Herschel Harter, M.D., St. Louis.

The Treatment of Postoperative Renal Failure, Thomas Crouch, M.D., Kansas City.

Problems of Vascular Access in the Patient with Renal Failure, Edward E. Etheredge, M.D., St. Louis.

Moderator: George L. Tucker, M.D., St. Louis

Sponsored by the Missouri State Surgical Society.

2:00-

4:00 PM *Mucocutaneous Candidiasis*. Mission Room.

2:00-

3:00 Charles Kirkpatrick, M.D., Denver, Colo., Head, Clinical Allergy and Hypersensitivity Section, National Institutes of Health.

Moderator: Larry E. Millikan, M.D., Columbia.

- 3:00-
4:00 *Management of Common Skin Conditions*
Panel Participants: Jerold Rau, M.D., Kansas City
Philip Anderson, M.D., Columbia
Joseph M. Duvall, M.D., St. Louis
Wilfred E. Wooldridge, M.D., Springfield
Victoria Gunn, M.D., Jefferson City
Moderator: Gary A. Dyer, M.D., St. Joseph.
Sponsored by the Missouri Dermatological Society.
- 2:00-
3:30 PM "1980 Update in Clinical Medicine" (Continued).
Sponsored by the Missouri Society of Internal Medicine. Roanoke Room.
- 2:00-
2:30 "Pulmonary Embolism, Fact or Fancy," Robert Conn, M.D., Kansas City,
Professor of Medicine, University of Missouri School of Medicine and
Chairman, Department of Medicine, Truman Medical Center.
- 2:30-
3:00 "Drug Management of Peptic Ulcer Disease," Joel Covinsky, Pharm.D.,
Kansas City; Associate Professor, University of Missouri School of Medi-
cine and Pharmacy.
- 3:00-
3:30 "Update on Venereal Disease," Charles K. McAllister, M.D., Kansas City,
Assistant Professor of Medicine, University of Missouri School of Medi-
cine.
Moderator: Stephen Hamburger, M.D., Kansas City.
- 2:00-
3:30 PM *How to Handle Infidelity in Therapy*. Presidents Room.
Speaker: Mary Ann Bartusis, M.D., Morrisville, Penn., Psychiatrist in Private
Practice, Author of Best Selling Book, "Every Other Man," regarding Infidelity
and Clinical Assistant Professor in Psychiatry, University of Pennsylvania School
of Medicine.
Moderator: Barbara Buchanan, M.D., Kansas City.
Sponsored by the Missouri Psychiatric Association.
- 3:00-
4:00 PM Missouri State Medical Foundation Annual Meeting. Century Room.
- 4:00 PM House of Delegates, Second Session. Century Room.
- 6:00 PM Reference Committee Meetings.
- 6:00-
7:30 PM Reception Honoring Incoming MSMA Auxiliary President. Century Foyer.
- 6:30 PM Missouri State Surgical Society Cocktails & Dinner. Centennial "B" Room.
- 6:30 PM Missouri Society of Pathologists Cocktails (Westport Room) and Dinner (Presidents
Room).
Missouri Psychiatric Association Cocktails and Dinner, Liberty Room.
Guest Speaker: Mary Ann Bartusis, M.D., Morrisville, Penn.
Topic: "Medical Marriages"
- 7:00 PM Missouri Dermatological Society Cocktails and Dinner. Shawnee-Mission Room.

Saturday, April 19

- 7:00 AM 10th Councilor District Breakfast. Senators Board Room.
- 7:00 AM Missouri Ear, Nose and Throat Association Breakfast. Governors Board Room.
- 7:30 AM Missouri Ophthalmological Society, Inc. Board of Directors Breakfast. Ambassadors
Board Room.
- 7:30 AM MSMA Auxiliary Public Affairs Breakfast. Century Room.
- 8:00 AM Registration. Century Foyer.
- 8:00-
11:00 AM Complimentary Coffee and Rolls. Century Foyer.
- 9:00 AM-
4:00 PM *Scientific Session* Sponsored by the MSMA Committee on the Impaired Physician,
Westport Room.
- 9:00-
10:30 *The Story of an Impaired Physician*, G. Douglas Talbott, M.D., Smyrna, Ga.,
Medical Director, Ridgeview Institute.
- 10:45-
11:30 *A Psychiatrist Looks at Alcohol and Drug Abuse Treatment Programs*, David
L. Ohlms, M.D., St. Louis, Psychiatrist in Private Practice.
- 11:30-
12:30 *The Mentally and Emotionally Impaired Physician*, George Penn, M.D.,
Topeka, Kans., Staff Psychiatrist and Section Chief, Emergency Admissions
Unit, The Menninger Foundation.

- 1:30-
2:15 *The Impaired Physician's Family*, Mrs. Jackie Harrison, Daytona Beach, Fla.,
Director, Health Service Clinic, Daytona Beach Community College.
- 2:15-
3:00 *The Sick Doctor and the Missouri State Board of Registration for the Healing Arts*, Mr. Gary Clark, Jefferson City, Executive Secretary, Missouri State Board of Registration for the Healing Arts.
- 3:00-
4:00 Panel Discussion — "Problems of Confrontation."
- 8:30 AM-
5:00 PM *Cutaneous Surgery Course*. Liberty Room and Centennial "B" Room.
Speaker: Loren E. Golitz, M.D., Denver, Colo., Associate Professor of Dermatology and Pathology, University of Colorado Medical center, Chief, Dermatology, Denver General Hospital.
Sponsored by the Missouri Dermatological Society and the American Academy of Dermatology.
- 9:00-
10:30 AM *The Management and Evaluation of the Infertile Couple*. Centennial "B" Room.
Speaker: Elwyn M. Grimes, M.D., Kansas City.
Smoking and Health: The Role of the Obstetrician-Gynecologist.
Speaker: Robert M. Kretschmar, M.D., Kansas City.
Sponsored by the Missouri OB-GYN Society.
- 9:00-
11:00 AM *Immunodiagnosis and Immunoevaluation, 1980*. Shawnee Room.
9:00-
9:30 *Immunology, Basic Principles*, Larry E. Millikan, M.D., Columbia, Associate Professor, Division of Dermatology, University of Missouri School of Medicine.
9:30-
10:30 *Clinical/Cutaneous Manifestations of Immune Abnormalities*, E. William Rosenberg, M.D., Memphis, Tenn., Professor, Department of Dermatology, University of Tennessee.
10:30-
11:00 *Laboratory Evaluation of Immune Function, Part I*, Charles Kirkpatrick, M.D., Denver, Colorado.
Moderator: Larry E. Millikan, M.D., Columbia.
Sponsored by the Missouri State Allergy Association.
- 9:00-
10:30 AM *Scientific Session* Sponsored by the Missouri Ophthalmological Society, Inc. Roanoke Room.
- 9:00-
11:00 AM *Communicative Disorders in Children with Emphasis on the Hearing Impaired Child*, Penn Valley Room.
Speakers: Patrick Brookhouser, M.D., Omaha, Neb., Executive Director, Boystown Institute.
Edward L. Franklin, M.D., Overland Park, Kans., Director, Gallaudet Foundation, Mid-Central Extension Center, Johnson County Community College.
Emma Curry, Sedalia.
Sponsored by the Missouri Ear, Nose and Throat Association.
- 9:00 AM-
12:30 PM *Scientific Session* Sponsored by Physical Medicine and Rehabilitation. Independence Room.
9:30-
10:10 "Nerve Entrapment in Lower Extremities," Jan McClain, M.D., Chicago, Professor of Rehabilitation Medicine, Northwestern University Medical School.
10:10-
10:40 "Nerve Entrapment of Upper Extremities," Otakar Machek, M.D., St. Louis.
10:40-
12:30 Panel Discussion.
Moderator: Otakar Machek, M.D., St. Louis.
- 9:00-
10:30 AM "Meet Your AMA Delegates." Mayors Board Room.
- 9:30-
11:30 AM Missouri Radiological Society Board Meeting. Trustees Board Room.
- 11:00 AM-
12:30 PM *Reconstructive Surgery Following Tubal Ligation and Other Tubal Blockages to Restore Fertility*. Centennial "B" Room.

Speaker: William Griffin, M.D., Columbia.
Sponsored by the Missouri OB-GYN Society.

11:00 AM-

12:30 PM *Laboratory Aspects of Therapeutic Drug Monitoring*. Presidents Room.

Speaker: Dwight K. Oxley, M.D., Kansas City.
Moderator: Wellington B. Stewart, M.D., Columbia.
Sponsored by the Missouri Society of Pathologists.

11:00 AM-

12:30 PM *Advances in Urologic Surgery*. Shawnee Room.

Panelists: *Penile Prostheses*, John Weigel, M.D., Kansas City, Kan.
Supravesical Urinary Diversion — Indications and Methods, Stephen H. Weinstein, M.D., Columbia.
Management of Testicular Carcinoma, William Catalona, M.D., St. Louis.

Moderator: William Newton, M.D., St. Louis.
Sponsored by the Missouri State Surgical Society.

11:30 AM Missouri Radiological Society Board Luncheon. Officers Board Room.

12:00 NOON Missouri State Allergy Association Luncheon and Meeting. Governors Board Room.

12:00 NOON Missouri Ophthalmological Society Inc. Luncheon. Garden Terrace.

12:30 PM Physical Medicine and Rehabilitation Luncheon. Senators Board Room.

12:30 PM Missouri Women Physicians Luncheon. Penn Valley Room.

Speaker: Mary Ann Bartusis, M.D., Morrisville, Penn.
Topic: "The Impaired Female Physician."

12:30 PM Missouri OB-GYN Society Luncheon. Centennial "B."

12:30 PM Fifty-Year Club Luncheon. Ambassadors Board Room.

12:30 PM Missouri Society of Neurosurgeons Luncheon. Executives Board Room.

1:00 PM Federation of Missouri Urologists Luncheon. Independence Room.

1:30 PM MMPAC Meeting. Mayors Board Room.

1:00-

4:00 PM *Scientific Session* Sponsored by the Missouri Radiological Society. Congressional Board Room.

1:00-

1:40 "Air Contrast Upper Gastrointestinal Studies; Technique and Cases," James K. Fisher, M.D.

1:45-

2:25 "Interventional Radiology of the Biliary Tract," Kendrick C. Davidson, M.D.

2:30-

2:55 "Inflammatory Bowel Disease as Seen on Air Contrast Barium Enema Examinations," James K. Fisher, M.D.

3:00-

3:40 "Epidural Venography," David Fortin, M.D.

4:00 Business Meeting — Missouri Radiological Society.

Sponsored by the Missouri Radiological Society.

2:00-

4:00 PM Continuation of Scientific Session Sponsored by the Missouri State Allergy Association, Mission Room.

2:00-

2:30 *Part 2, Laboratory Evaluation*.

2:30-

3:15 *What's New in Immunologic Research/Reports from the Allergy Programs*.

3:15-

3:45 *Demonstration of Laboratory Tests*.

3:45-

4:00 *Questions and Answers*.

Panel Participants: E. William Rosenberg, M.D., Memphis, Tenn.
Charles Kirkpatrick, M.D., Denver, Colo.
Robert Dockhorn, M.D., Prairie Village, Kan.
Raymond G. Slavin, M.D., St. Louis.

Moderator: Robert Dockhorn, M.D.

2:00-

3:30 PM *Clinical Interpretations of Therapeutic Drug Monitoring*. Shawnee Room.

Speaker: Dwight K. Oxley, M.D., Kansas City.
Moderator: Wellington B. Stewart, M.D., Columbia.
Sponsored by the Missouri Society of Pathologist.

4:00 PM Missouri State Allergy Association Business Meeting. Governors Board Room.

5:00-

6:30 PM Missouri University Alumni Reception. Liberty Room.

5:00-
6:30 PM Washington University Alumni Reception. Shawnee Room.
5:00-
6:30 PM St. Louis University Alumni Reception. Mission Room.
6:30 PM MSMA Social Hour. Century Foyer.
7:15 PM MSMA Annual Banquet. Century Room.

Sunday, April 20

7:30 AM House of Delegates Breakfast Meeting. Century Room.
9:00 AM-
1:00 PM Missouri Dermatological Society Meeting — University of Missouri, Kansas City.

Preliminary Program — 55th Annual Convention

MSMA AUXILIARY

Crown Center Hotel, Kansas City

April 17-20, 1980

Thursday, April 17

10:00 AM-4:00 PM Registration and Information. Roanoke Foyer.
10:30 AM Auxiliary Report to the MSMA House of Delegates.
4:00 PM Pre-Convention Board Meeting. Westport Room.
6:30 PM Second Annual Benefit Auction for AMA-ERF and MSMF.

Friday, April 18

7:15-11:30 AM MSMA Complimentary Coffee and Rolls. Century Foyer.
8:00 AM-4:00 PM Registration and Information. Roanoke Foyer.
9:00 AM *Seminar: "Physician Heal Thyself"*
Speaker: Gordon H. Deckert, M.D., Oklahoma City, Okla., Professor and Head,
Department of Psychiatry and Behavioral Sciences, University of Oklahoma.
(Auxiliary members are urged to attend this seminar jointly sponsored with the MSMA.)
10:45 AM General Assembly and Business Meeting. Liberty Room.
12:00 NOON Councilor's Luncheon. Liberty Room.
2:00-4:30 PM General Session and Business Meeting. Liberty Room.
6:00 PM Reception honoring MSMA Auxiliary President for 1980-1981. Century Foyer.
7:30 PM Dutch Treat Dinner.

Saturday, April 19

7:30 AM Public Affairs Breakfast. Century Room.
8:00-11:00 AM MSMA Complimentary Coffee and Rolls. Century Foyer.
9:00 AM General Assembly and Workshop. Century Room.
12:00 NOON Installation Luncheon. Century Room.
2:00 PM Post-Convention Board Meeting. Century Room.



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OFFICIAL DELEGATES

122nd Annual Session

<i>Component Society</i>	<i>Delegates</i>	<i>Alternates</i>
Andrew	Warren C. Baker, Savannah	J. L. Villahermosa, Savannah
Audrain	Ben Jolly, Mexico	Gerald M. Hoxworth, Mexico
"	Harold D. Lankford, Mexico	Mary Mullen, Rush Hill
Barton	Alvin R. Cain, Lamar	H. E. Piedra, Lamar
Boone	Hugh E. Stephenson, Columbia	Thomas W. Burns, Columbia
"	Ben A. Moranville, Columbia	Lewis J. Garrotto, Columbia
"	Kenneth L. Rall, Columbia	Jerry W. Templer, Columbia
"	William C. Allen, Columbia	Diane Brukardt, Columbia
"	George J. Fuchs, Columbia	Carl G. Kardinal, Columbia
"	Leroy Miller, Columbia	George W. Eggers, Columbia
"	A. Sherwood Baker, Columbia	Ted D. Groshong, Columbia
"	Larry E. Millikan, Columbia	Winston E. Harrison, Columbia
"	William D. Bradshaw, Columbia	Robert E. McDavid, Columbia
"	Hugh S. Harris, Columbia	Thomas R. Anderson, Columbia
"	Joseph E. Montie, Columbia	Gilbert Ross, Columbia
"	Robert M. Thomas, Columbia	William E. Davis, Columbia
"	Garth S. Russell, Columbia	
"	James C. Denninghoff, Columbia ..	
"	James M. Pickens, Columbia	
Buchanan	Gary A. Dyer, St. Joseph	Edward M. Beheler, St. Joseph
"	Edmund W. Kline, St. Joseph	Robert L. Corder, Jr., St. Joseph
"	Wallace McDonald, St. Joseph	Gerald E. Fox, St. Joseph
"	Ernest E. Wadlow, St. Joseph	F. James Marston, St. Joseph
"	Berwyn H. Moen, St. Joseph	C. N. Mullican, St. Joseph
"	Joe S. Gunter, St. Joseph	F. Gregg Thompson, III, St. Joseph
Butler-Wayne-		
Ripley-Carter ..	George H. Ladyman, Poplar Bluff ..	Kirby L. Turner, Poplar Bluff
"	William D. Robertson, Poplar Bluff ..	Ben N. Till, Poplar Bluff
"	Henry E. Lestmann, Fairdealing ..	T. E. Ruff, Poplar Bluff
"	John L. Hunt, Poplar Bluff	Robert H. Laatsch, Poplar Bluff
Callaway	Vernon Jackson, Fulton	Henry Durst, Fulton
Cape Girardeau ..	Jean A. Chapman, Cape Girardeau ..	J. W. Terry, Cape Girardeau
"	John K. Holcomb, Cape Girardeau ..	J. Marshall Jung, Cape Girardeau
"	Charles H. Cozean, Jr., Cape ..	
"	Girardeau	Gordon W. Eller, Cape Girardeau
"	Melvin C. Kasten, Cape Girardeau ..	
"	Carl F. Ritter, Cape Girardeau	
Chariton-Macon-		
Monroe-		
Randolph	R. V. Tompson, Moberly	H. T. Lin, Moberly
"	J. E. Campbell, Macon	D. E. Eggleston, Macon
"	F. A. Barnett, Paris	C. H. Lin, Moberly
"	C. C. Cohrs, Moberly	W. D. Chute, Moberly
Clay	Richard P. Bowles, Liberty	Theodore B. Bownick, Kansas City
"	Donald Fakhoury, Kansas City	Nathan D. Burroughs, Kansas City
"	Nicola Y. Katf, Kansas City	Jerry W. Cook, Kansas City
"	Donald E. Kuenzi, Kansas City	John C. Hagan, III, N. Kansas City
"	William R. McPhee, Kansas City	Carl R. Slaughter, Kansas City
"	Truman B. Schertz, N. Kansas City ..	F. Anthony Thomas, Kansas City
"	William D. Soper, Liberty	David E. Wilson, Kansas City
Clinton	Paul T. Luckenbill, Plattsburg	
Cole	Mary K. McCaffree, Jefferson City ..	Robert P. Wankum, Jefferson City
"	Charles J. Landsbaum, Jefferson City ..	J. Lee Rea, Jefferson City
"	Kenneth K. Siu, Jefferson City	Robert H. Tanner, Jefferson City
"	Larry Giffin, Jefferson City	Royal S. Garner, Jefferson City
Cooper	George Winn, Boonville	
Dallas-Hickory-		
Polk-Dade	O. A. Griffin, Buffalo	Neil Trachtman, Buffalo
"	Ruth Rios, Bolivar	Evelyn Griffin, Buffalo
"	Lee McNeel, Greenfield	
Dunklin	John Legan, Kennett	

<i>Component Society</i>	<i>Delegates</i>	<i>Alternates</i>
Franklin- Gasconade- Warren	William Richardson, Union	
"	James T. Shaw, Hermann	
"	Harold F. Hoelscher, Warrenton	
Grand River	Thomas Cofer, Chillicothe	R. H. Staton, Carrollton
"	John Dixon, Brookfield	George Mandler, Chillicothe
"	Albert Cross, Trenton	
"	Ralph Bohnsack, Brookfield	
"		
"	John Platz, Carrollton	Billy Howell, Brookfield
"	Hermanito R. Trinidad, Chillicothe	
"	Joseph Conrad, Chillicothe	
"	Merriam Gearhart, Bethany	Young Park, Chillicothe
Greene	Stanley S. Peterson, Springfield	Hugh Lundman, Springfield
"	H. B. Ivy, Springfield	Larry Dowell, Strafford
"	Darrel Domann, Springfield	Michael S. Clarke, Springfield
"	Don Menchetti, Springfield	Gary Walker, Springfield
"	Floyd R. Barnhill, Springfield	Donald Riesenberger, Springfield
"	Ramon Shane, Springfield	John Mihalevich, Springfield
"	Arlen Winsky, Springfield	James Wolfe, Springfield
"	DeArmond Moore, Springfield	Norman Knowlton, III, Springfield
"	David W. Hall, Rogersville	Robert Coscia, Springfield
"	Edward Gwin, Springfield	Robert Lovett, Springfield
"	Philip R. Fogle, Springfield	Dan Sullivan, Springfield
"	Warford Johnson, II, Springfield	Charles Jobe, Springfield
"	Courtney Whitlock, Springfield	Newt Wakeman, Jr., Springfield
"	Michael Gentry, Springfield	Duane C. Hellam, Springfield
"	Francis M. Corry, Springfield	James Cordonnier, Springfield
Henry	Richard King, Clinton	
Howard	F. D. Dean, Fayette	

Delegates

Jackson	Milton B. Ozar, Kansas City	Larry G. Piepergerdes, Kansas City
"	Robert C. Fairchild, Kansas City	Robert A. Slickman, Kansas City
"	George E. Volk, Kansas City	Edward J. Twin, Kansas City
"	Lana K. Minnegerode, Kansas City	Glen A. Barr, Kansas City
"	Keith J. Abercrombie, Kansas City	Nancy R. Mikkelsen, Kansas City
"	Stanley N. Brand, Kansas City	David S. Sneid, Kansas City
"	Vewiser L. Dixon, Kansas City	Harry Wall, Kansas City
"	John R. Goheen, Kansas City	Calvin J. Curts, Kansas City
"	Raymond W. Hartwig, Kansas City	Frederick W. Hahn, Jr., Kansas City
"	William D. Hoadley, Kansas City	John H. Wells, Kansas City
"	R. Stacy Long, Kansas City	Marion E. Jones, Kansas City
"	Jack D. Moore, Kansas City	Granville E. Clark, Kansas City
"	Lloyd C. Olson, Kansas City	John Aldridge, Kansas City

(Note: The balance of 61 delegates from Jackson County Medical Society had not been elected at the time this issue of MISSOURI MEDICINE went to press.)

<i>Component Society</i>	<i>Delegates</i>	<i>Alternates</i>
Jasper		
"		
"		
"		
Jefferson	Vicente D. Deles, Crystal City	
Johnson		
Laclede		
Lafayette-Ray	Charles T. Riley, Richmond	George Devault, Richmond
"	Jerry Meyer, Concordia	Robert Pavlu, Waverly
Lake of the Ozarks	Chris K. Fotopoulous, Osage Beach	
"	Ruth Kauffman, Versailles	
"	Otis O. Moseley, Osage Beach	
Lewis-Clark- Scotland	S. Moitra, Memphis	Landis Y. Davis, Canton

<i>Component Society</i>	<i>Delegates</i>	<i>Alternates</i>
Marion-Ralls-		
Shelby	Federico Florendo, Hannibal	Edward Plowman, Hannibal
"	Julian R. Comer, New London	Michael J. Bukstein, Hannibal
"	Charles Lichty, Shelby	Carl R. Kruse, Palmyra
Mid-Missouri . . .	Frank Elders, Cuba	Barbara Russell, Rolla
"	Hugh Bartlett, Rolla	
"	Deo Bahti, Salem	
"	George Slahorek, Fort Leonard Wood . . .	
Mineral Area . . .		
"		
"		
"		
Moniteau	L. M. Gallagher, California	K. S. Latham, California
Montgomery	S. J. Byland, Wellsville	
North Central . . .		
"		
Northwest	Patrick Harr, Maryville	G. R. Wempe, Maryville
"	Frank Matteson, Grant City	A. Tenorio, Stanberry
"	A. L. Carlin, Stanberry	W. Dean, Maryville
"	J. M. Humphrey, Mound City	Isabelo Castillo, Maryville
"	Edward Bare, Tarkio	E. D. Imes, Maryville
Ozarks	Michael Hagen, Aurora	Kenneth Glover, Mt. Vernon
"	Mary Merideth, Cassville	Victor Occeno, Monett
"	Stanley Roper, Ozark	F. R. Esparrago, Monett
"	Paul Anderson, Neosho	Robert Betz, Neosho
Pemiscott		
Perry-Ste.		
Genevieve	J. S. Yang, Ste. Genevieve	S. S. Hamid, Ste. Genevieve
"	Job Pontillas, Perryville	
Pettis	Jerome E. Block, Sedalia	Donald Allcorn, Sedalia
"	A. J. Campbell, Sedalia	Robert W. Edmonds, Sedalia
Pike		
Platte	I. W. Kimball, Kansas City	Hill C. Thurman, Parkville
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Lincoln	Ferdinand Del Pizzo, St. Charles . . .	Wayne Miles, St. Charles
"	John Soucy, St. Charles	James L. Carpenter, St. Charles
"	Edward Damron, Elsberry	Francisco O'Bando, Troy
"	James Felder, St. Charles	Gerald Yaeger, St. Charles
<i>Delegates</i>		
St. Louis		
Metropolitan . . .	Morris Alex, St. Louis	Seymour Brown, St. Louis
"	Osiias A. Almiron, St. Louis	Fritz A. Byrum, St. Louis
"	Ulises Alvarez, St. Louis . . .	R. William Burmeister, St. Louis
"	John M. Anderson, St. Louis	Carlo P. Caciolo, St. Louis
"	Luis B. Anglo, St. Louis	Gerard Callaghan, St. Louis
"	Vernon H. Balster, St. Louis	Donald E. Callahan, St. Louis
"	M. Roman Banton, St. Louis	Rudolph Catanzaro, St. Louis
"	William C. Banton, II, St. Louis	Stanley J. Ciapciak, St. Louis
"	Robert Becker, St. Louis	Jill M. Clayton, St. Louis
"	Donald T. Behrens, St. Louis	Harry O. Cole, St. Louis
"	William Berman, St. Louis	Nicholas J. Colosi, St. Louis
"	John W. Berry, St. Louis	Marshall B. Conrad, St. Louis
"	Ralph L. Bidy, St. Louis	Juan Corvalan, St. Louis
"	Arnold S. Block, St. Louis	Cyril Costello, St. Louis
"	George M. Bohigian, St. Louis	Reno R. Cova, St. Louis
"	C. Read Boles, St. Louis	Richard J. Dames, St. Louis
"	Robert L. Bolton, St. Louis	Richard Danis, St. Louis
"	Leslie F. Bond, St. Louis	James Diestelhorst, St. Louis
"	James E. Bowers, St. Louis	Robert B. Deitchman, St. Louis
"	Richard V. Bradley, St. Louis	Burl M. Dillard, St. Louis
"	Robert D. Brookes, St. Louis	Henry C. Dugas, St. Louis

<i>Component Society</i>	<i>Delegates</i>
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"	William H. McAlister, St. Louis
"	Virgilio Dumadag, St. Louis
"	Allan McCown, St. Louis
"	Pablo C. deUngria, St. Louis
"	C. Douglas Meadows, St. Louis
"	James E. Edwards, St. Louis
"	Ravinder Mehra, St. Louis
"	Harry C. Eggleston, St. Louis
"	Roger L. Mell, St. Louis
"	Klark Exarhou, St. Louis
"	Orlando Meneses, St. Louis
"	Daniel C. Fabito, St. Louis
"	Melvin E. Meyer, St. Louis
"	Mariano Floro, St. Louis
"	Jerry N. Middleton, St. Louis
"	Sylvester A. Flotte, St. Louis
"	Charles Miller, Jr., St. Louis
"	Daniel M. Fraser, St. Louis
"	Robert N. Miller, St. Louis
"	Raymond O. Frederick, St. Louis
"	Emil F. Miskovsky, St. Louis
"	Paul L. Friedman, St. Louis
"	Charles A. Molden, St. Louis
"	Joseph Gagliardo, St. Louis
"	Arturo C. Montes, St. Louis
"	John A. Gantz, St. Louis
"	Robert J. Mueller, St. Louis
"	David L. Gearhart, St. Louis
"	Wilbur A. Mullarky, St. Louis
"	August W. Geise, St. Louis
"	William Newton, St. Louis
"	Elliot F. Gellman, St. Louis
"	Frank Niesen, St. Louis
"	Lance Gerowin, St. Louis
"	David L. Ohlms, St. Louis
"	Aloysius C. Gerst, St. Louis
"	Joseph D. O'Keefe, St. Louis
"	Jonathan A. Gold, St. Louis
"	Lawrence W. O'Neal, St. Louis
"	James M. Gordon, St. Louis
"	Frank Ostapowicz, St. Louis
"	Clement B. Grebel, St. Louis
"	William J. Ott, St. Louis
"	Joseph Grindon, St. Louis
"	Leopoldo P. Pardo, St. Louis
"	Man Mohan Gursahani, St. Louis
"	S. D. Parwatikar, St. Louis
"	David A. Hardy, St. Louis
"	Romeo J. Perez, St. Louis
"	Thomas D. Hartnett, St. Louis
"	John A. Powell, St. Louis
"	George L. Hawkins, St. Louis
"	Arthur L. Prensky, St. Louis
"	John A. Headrick, St. Louis
"	Richard T. Quick, St. Louis
"	Marijan Herjanic, St. Louis
"	George B. Rader, St. Louis
"	Falls B. Hershey, St. Louis
"	Robert Rainey, St. Louis
"	Patrick C. Hogan, St. Louis
"	Robert Ramsey, St. Louis
"	Vencel W. Hollo, St. Louis
"	David M. Reisler, St. Louis
"	Simon Horenstein, St. Louis
"	Rosendo A. Reyes, St. Louis
"	J. Ted Jean, St. Louis
"	Frank O. Richards, St. Louis
"	Joshua E. Jensen, II, St. Louis
"	Salvatore N. Riggio, St. Louis
"	Thomas A. Johnson, Jr., St. Louis
"	Edward M. Ring, St. Louis
"	Otey S. Jones, St. Louis
"	Hubert A. Ritter, St. Louis
"	Victor Jones, St. Louis
"	John P. Roberts, St. Louis
"	Mohammad A. Kabir, St. Louis
"	Herbert E. Rosenbaum, St. Louis
"	Jack Kayes, St. Louis
"	George E. Roulhac, St. Louis
"	John J. Kelly, St. Louis
"	Michael Rumelt, St. Louis
"	John D. Kenney, St. Louis
"	Shabbir Saffdar, St. Louis
"	Joseph L. Kennington, St. Louis
"	Mickey L. Salmon, St. Louis
"	Abdul R. Khan, St. Louis
"	Antonio B. Santillano, St. Louis
"	Edward H. Kowert, St. Louis
"	Glennon Schaefer, St. Louis
"	Norton S. Kronemer, St. Louis
"	Melvin Schwartz, St. Louis
"	Robert E. Kuhlman, St. Louis
"	John S. Sciortino, St. Louis
"	John M. Laird, St. Louis
"	Donald G. Sessions, St. Louis
"	Felix E. F. Larocca, St. Louis
"	Bharat K. Shah, St. Louis
"	Paul U. Larson, St. Louis
"	Edward Shaw, St. Louis
"	George H. Lawrence, St. Louis
"	W. Gary Sherman, St. Louis
"	Leo J. LeBlanc, St. Louis
"	William Shieber, St. Louis
"	Jerome L. L'Ecuyer, St. Louis
"	Herman Shyken, St. Louis
"	Charles Lepley, St. Louis
"	A. J. Signorelli, St. Louis
"	Jack R. Lichtenstein, St. Louis
"	David L. Simon, St. Louis
"	Francis X. Lieb, St. Louis
"	James C. Sisk, St. Louis
"	Vincent J. LoPiccolo, Jr., St. Louis
"	Richard G. Sisson, St. Louis
"	Frank Luechtefeld, St. Louis
"	John A. Sopuch, St. Louis
"	George A. Luther, St. Louis
"	Kenneth R. Smith, Jr., St. Louis
"	T. Cameron MacCaughelty, St. Louis
"	Louis P. Stickley, St. Louis
"	Robert R. MacDonald, Jr., St. Louis
"	William Stoneman, III, St. Louis
"	Otakar Machek, St. Louis
"	Samuel D. Soule, St. Louis
"	Napoleon S. Maminta, St. Louis
"	Bruce Stoliar, St. Louis
"	Robert A. Mayer, St. Louis
"	William P. Svancarek, St. Louis
"	Paul F. Max, St. Louis
"	George Thoma, St. Louis

<i>Component Society</i>	<i>Delegates</i>	
St. Louis	Donald L. Thurston, St. Louis	Newton B. White, St. Louis
"	Timothy T. Turner, St. Louis	Miles C. Whitener, St. Louis
"	Frank J. Valach, St. Louis	James M. Whittico, St. Louis
"	Robert J. Valko, St. Louis	David Wilkinson, St. Louis
"	Michael W. Vannier, St. Louis	Carol F. Williams, St. Louis
"	Ernest T. Velasco, St. Louis	Tyrus D. Winter, St. Louis
"	Benito Veluz, St. Louis	R. Dean Wochner, St. Louis
"	James C. Vest, St. Louis	Ray J. Wolff, St. Louis
"	Nicholas S. Vitale, St. Louis	Robert M. Woolsey, St. Louis
"	Pio M. Vilar, St. Louis	George Zografakis, St. Louis
"	Bruce J. Walz, St. Louis	Edwin J. Cunningham, Jr., St. Louis
"	Hugh R. Waters, St. Louis	Jay L. Liss, St. Louis
"	William B. Webber, St. Louis	

Alternates

St. Louis	Charles Dahm, Jr., St. Louis	Robert Dorton, St. Louis
"	Kevin B. Smith, St. Louis	Jack Tippet, St. Louis
"	Charles Nester, St. Louis	Richard J. Bower, St. Louis
"	Michael Richmond, St. Louis	

*Delegates**Alternates*

Saline	K. T. Papreck, Marshall	E. L. McCorkle, Marshall
SEMO	Edwin J. Masters, Sikeston	Max Heeb, Sikeston
"	Willbur L. Davis, Charleston	Gregorio Rodriguez, Charleston
"	Fuad Kandalaf, Dexter	Ron Hill, Dexter
"	John P. Sargent, Sikeston	William Critchlow, Sikeston
South Central . .	Jack N. Wiles, West Plains	W. T. Morgan, West Plains
"	A. T. Walker, Thayer	M. W. Runez, Houston
"	L. C. Mayuga, Cabool	Joe Spears, Cabool
"	O. Martin Hasek, Mountain Grove	M. H. Choudhury, Mansfield
"	M. C. Gentry, Ava	C. F. Smith, Willow Springs
Webster	T. M. Macdonnell, Marshfield	R. J. Bareis, Marshfield
West Central . .	Alfred W. Eklund, Pleasant Hill	William W. Haynie, Butler
"	Robert L. Magee, El Dorado Springs	Ooch Cantrell, Butler
"	L. M. Magruder, Nevada	Roy W. Pearce, Nevada
"	Arthur L. Hansen, Butler	Curtis W. Long, Butler
"	Glen H. Reed, Appleton City	Robert H. Brownsberger, Appleton City

Student Delegates

<i>University of Missouri-Columbia</i>	<i>Washington University</i>
Mr. Arthur Freeland	Ms. Margaret J. Cheadle
Mr. Randy Silverstein	Ms. Lesley Furlong
<i>University of Missouri-Kansas City</i>	<i>St. Louis University</i>
Ms. Anita Wang	
Mr. Anthony S. Shen	

Past Presidents — Delegates-at-Large

Robert Mueller, St. Louis	Joseph L. Fisher, St. Joseph
Guy N. Magness, University City	Gerald L. Miller, Kansas City
H. E. Petersen, St. Joseph	Walter T. Gunn, St. Louis
Victor B. Buhler, Kansas City	E. A. Stricker, St. James
Kenneth C. Hollweg, Kansas City	James C. Cope, Rocheport
Leonard T. Furlow, Crystal River, Florida	R. Allen Chandler, Kansas City
Paul R. Whitener, Chesterfield	Max S. Franklin, St. Louis
Byron M. Stuart, Boonville	Howard J. McAlhany, Springfield
Hector W. Benoit, Jr., Kansas City	John N. Martin, St. Joseph
Doyle C. McCraw, Bolivar	

Speaker and Vice-Speaker — Delegates-at-Large

Edwin K. Burford, Jr., Cape Girardeau,	Jay L. Meyer, St. Louis
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COMMERCIAL EXHIBITORS LIST

For the 122nd Annual Session

Booth	Exhibitors	Booth	Exhibitors
31	ABBOTT LABORATORIES North Chicago, Ill.	30	MISSOURI MEDICAL INSURANCE COMPANY St. Louis
19	ANTIGEN LABORATORIES, INC. Liberty	13	MUNNS MEDICAL SUPPLY COMPANY, INC. Topeka, Kan.
8	BLUE SHIELD — ST. LOUIS & KANSAS CITY St. Louis	22	PFIZER LABORATORIES Hoffman Estates, Ill.
27	BOOTS PHARMACEUTICALS, INC. Shreveport, La.	5	PIEROTH BROTHERS, INC. Des Plaines, Ill.
14	CIBA PHARMACEUTICAL COMPANY Arlington, Tex.	26	POINT SURGICAL Camden Point
3	DAMON MEDICAL LABORATORIES/MIDWEST Overland, Park, Kan.	32	ROWELL LABORATORIES, INC. Baudette, Minn.
16	ENCYCLOPAEDIA BRITANNICA Chicago, Ill.	11	W. B. SAUNDERS COMPANY Lenexa, Kan.
1	FRED S. JAMES & COMPANY OF MISSOURI, INC. Kansas City	4	SEILER INSTRUMENT AND MANUFACTURING COMPANY, INC. St. Louis
24	GEIGY PHARMACEUTICALS Edina, Minn.	21	SMITH KLINE & FRENCH LABORATORIES Philadelphia, Pa.
2	GENERAL DATA SYSTEMS St. Louis	33	SUMMIT MEDICAL DISTRIBUTORS Lee's Summit
20	HYLAND CENTER — A DIVISION OF ST. ANTHONY'S MEDICAL CENTER St. Louis	23	SYNTEX LABORATORIES, INC. Palo Alto, Calif.
10	INTERNATIONAL CLINICAL LABORATORIES, INC. St. Louis	6	U. S. ARMY MEDICAL RECRUITING FIELD OFFICE St. Louis
29	INTERNATIONAL MEDICAL ELECTRONICS, LTD. Kansas City	12	VITALOGRAPH MEDICAL INSTRUMENTATION Lenexa, Kan.
17	THE KEY COMPANY St. Louis	28	WALLACE LABORATORIES Cranbury, N. J.
7	KREMERS-URBAN COMPANY Milwaukee, Wis.	25	WYETH LABORATORIES Philadelphia, Pa.
18	MAXEY MEDICAL, INC. Hazelwood		
9	MEDICAL DEFENSE ASSOCIATES, LTD. Springfield		
15	THE MEDICAL PROTECTIVE COMPANY Fort Wayne, Ind.		

In lieu of Exhibits, the following firms made cash donations to assist in the sponsorship of Scientific Sessions:

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In Memoriam

Julius G. Viraghaty, M.D., R.R. Box 58, Glencoe 63038; a graduate of Orvosi Fakultás Tudományegyetem, Budapest, 1927; member of St. Louis Metropolitan Medical Society; age 78; died Dec. 7, 1979.

Clyde Ernest Kane, M.D., 6046 Clemens, St. Louis 63112; a graduate of Washington University, 1930; member of St. Louis Metropolitan Medical Society; age 87; died Dec. 15, 1970.

Edgar W. Johnson, Jr., M.D., 1917 O'Brien, Lee's Summit 64063; a graduate of the University of Kansas, 1942; member of Jackson County Medical Society; age 61; died Dec. 29, 1979.

Roy M. Johnson, M.D., Route #1, Box 93, Foristell 63348; a graduate of National University of Arts and Sciences Medical Department, St. Louis, 1916; member of St. Louis Metropolitan Medical Society; age 87; died Jan. 9, 1980.

Justin J. Cordonnier, M.D., 777B Cross Creek Dr., St. Louis 63141; a graduate of Washington University, 1928; member of St. Louis Metropolitan Medical Society; age 75; died Jan. 18, 1980.

Carl W. Poor, M.D., 411 Joy St., Neosho 64850; a graduate of St. Louis University, 1928; member of Jasper County Medical Society; age 77; died Jan. 25, 1980.

Oliver E. Tjoflat, M.D., 252 Woodbourne Dr., St. Louis 63105; a graduate of the University of Wisconsin, 1929; member of St. Louis Metropolitan Medical Society; age 75; died Feb. 15, 1980.

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1 tablet upon retiring. When necessary, 1 additional tablet may be taken following the evening meal.

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U.S. Patent 2,985,558

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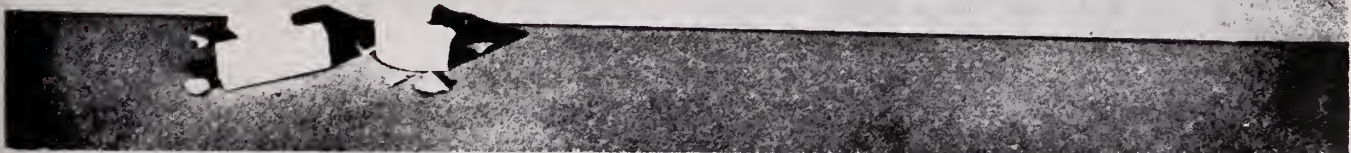
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in Brief

A summary of AMA, medical & health news

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DATES ARE NOW BEING BOOKED for state, county and specialty society cosponsorship of 1980 AMA workshops on the business side of medical practice. The newest offering, "Closing Your Medical Practice," is for physicians and spouses planning retirement. For further information on the eight courses for physicians, residents and medical assistants, contact the Department of Practice Management, AMA Headquarters.

THE AMA CONTINUES ITS SUPPORT for educational efforts to curb drug abuse in athletics and to cooperate fully with sports governing bodies which have outlawed the secret use of stimulatory drugs among athletes. At the 1979 Interim Meeting, the House of Delegates said the AMA will emphasize to the public and the medical profession that there "is no valid scientific evidence that any drug has ever resulted in improved athletic performance." The House said drugs of any type should be used only under strict medical supervision for the treatment of disease, deficiency or injury.

THE AMA SEMINARS ON THE ART and practice of negotiation will continue in 1980 with four programs. The first, "Introductory Seminar for Physician Negotiators: Dynamics of Conflict Resolution," will be held March 13-15 in Phoenix, Ariz. This seminar emphasizes the process, rules, procedures and techniques of negotiation, and participation in negotiation exercise. The registration fee, which includes educational materials and luncheons, is \$325 for AMA members and medical society staff, and \$450 for others. Category I CME credit will be given for all negotiations seminars. For more information contact the Department of Negotiations, AMA Headquarters.

THE AMA "PHYSICIANS GUIDE to Home Health Care" cites the current emphasis on providing quality and cost-efficient alternatives to institutional care as a vital reason for physician leadership in the development and provision of home health care for patients who can benefit from such services. Prepared by the AMA Coun-

cil on Medical Service, the guide covers all facets of home health care. Cost is \$1.00 each for 1-99 copies; 95¢ each for 100-499; 90¢ each for 500-999; and 85¢ each for 1,000 or more. To order write AMA Order Department, OP-077, P.O. Box 821, Monroe, Wis. 53566.

"DILEMMAS OF THE DECADE — Medical Education and Licensure" will be the theme of the 76th Congress on Medical Education on April 24-26 at the Palmer House in Chicago. Cosponsors of the Congress are the AMA, the Association for Hospital Medical Education, and the Federation of State Medical Boards of the United States. Featured speakers will be Theodore Cooper, M.D., dean at Cornell University Medical Center and former HEW assistant secretary for health; Donald Kennedy, Ph.D., provost at Stanford University and former Food and Drug Administration commissioner; and Newton Minow, senior partner of the Sidley and Austin law firm, Chicago, and former chairman of the Federal Communications Commission. The Congress will include workshops, panel discussions, and symposia. Registration fees are \$10 for students; \$15 for residents; and \$50 advance registration for all others, \$60 at time of Congress. Further information is available from the Department of Health Manpower, AMA Headquarters, (312) 751-6492.

PHYSICIANS' AVERAGE NET INCOME rose 5.3% per year in the period 1970-1978, less than the 6.7% average yearly increase for all goods and services as measured by the Consumer Price Index. The percentage growth in physicians' average net income was 2.9 in both 1977 and 1978, while the CPIs all items was 6.5% in 1977 and 7.7% in 1978. These figures are contained in the 1979 edition of *Profile of Medical Practice* (the "Red Book"), published by the AMA's Center for Health Services Research and Development. The book contains research articles on medical economics and data which profile physician work patterns, fees, expenses and incomes by specialty, age, census division, size of practice and location. For more information contact the Center, AMA Headquarters.

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

**Ellis Fischel State Cancer Hospital
and Cancer Research Center**
115 Business Loop 70 West, Columbia 65201
(314) 449-2711
Contact: Eugene Bricker, M.D.

May 3 Carcinoma of the Breast

**The Edward Mallinckrodt Institute of Radiology —
Washington University School of Medicine**
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
Contact: Ronald G. Evens, M.D., Director

City-Wide Radiology Conference
May 12 Parenchymal Liver Disease — Evaluation With Computed Tomography

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-5000

Every Wed.
& Fri. 3:00 PM — Basic Sciences to Surgery Seminar
4:00 PM — Surgical Rounds

Contact: Erich W. Pollak, M.D., Director of Surgical Education

First & Third
Saturdays 9:00 AM — Surgical Techniques Seminar
9:45 AM — Morbidity and Mortality Conference

10:30 AM — Surgical Grand Rounds
Every Tues. 9:00 AM — Medicine Staff Conference (Except second Tuesday of each month)

Contact: David S. Sneid, M.D., Director of Medical Education

St. Louis University Medical Center
1402 S. Grand Blvd., St. Louis 63104
(314) 664-9500
Contact: Eli M. Nadel, M.D., Cancer Program Coordinator

Apr. 2 Breast Cancer
Apr. 9 Viral Carcinogenesis
May 7 Actions of 5-Fluorouracil

St. Luke's Hospital of Kansas City
Wornall Rd. at 44th, Kansas City 64111
(816) 932-2000
Contact: Gail Williams

June 9-10 Neurology and Aphasia Seminar

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

Mar. 27-29 Perspectives in Medicine
(Crown Center Hotel)

Apr. 10-12 Update in Obstetrics and Gynecology
(Crown Center Hotel)

May 2-3 The Long Weekend: Office Clinical Care
(UMKC School of Medicine)

May 15-16 Surgical Problems, Old and New
(Alameda Plaza Hotel)

June 5-6 Symposium on Physical Fitness
(Crown Center Hotel)

July 25-26 Geriatrics Symposium
(Alameda Plaza Hotel)

Aug. 15-17 The Long Weekend: Endocrinology
(Tan-Tar-A, Osage Beach)

Oct. 30-

Nov. 1 Annual Fall Clinical Conference — K.C. Southwest Clinical Society
(Alameda Plaza Hotel)

Dec. 4-6 The Heart 1980
(Alameda Plaza Hotel)

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673
Contact: Office of CME

Mar. 20-21 Rheumatology Conference

Mar. 27-28 Current Concepts in Cerebrovascular Surgery

Apr. 10-11 Seventh Annual OB-GYN Symposium

Apr. 25-26 Eye Alumni Meeting

May 3-11 Second Annual Current Concepts in Musculoskeletal Radiology and Orthopedics Meeting

May 9-10 Orthopedic Radiology

May 15-16 Neuromuscular Diseases

Nov. 14-16 Seventh Annual Symposium: Anesthesia and the Geriatric Patient

University of Missouri School of Medicine Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
Contact: William D. Bradshaw, M.D.

- Mar. 20-21 Spring Surgery Conference
Mar. 31-
Apr. 1 26th Annual Urology Seminar
(Crown Center, Kansas City)
Apr. 9-10 Primary Pediatrics for the Primary Physician
Apr. 11-12 Special Procedures in Respiratory Therapy
Apr. 18-20 Group Relations
May 9-11 Third Annual Missouri Cardiovascular Conference
(Tan-Tar-A, Osage Beach)
June 2-3 Sixth International Symposium on Intestinal Microecology
June 21-22 The Emergency Patient
(Kirksville)
Aug. 1-2 Third Annual Missouri Sports Medicine Symposium
Aug. 2-3 The Emergency Patient
(Cape Girardeau)
Aug. 10-11 Third Annual Workshop in Soft Tissue Surgery
Aug. 7-8 Third Annual Workshop in Soft Tissue Surgery
Sept. 6-7 The Emergency Patient
(Branson)
Sept. 12-13 Hypertension Conference
(Tan-Tar-A, Osage Beach)
Sept. 19-20 Annual Plastic Surgery Symposium for the Primary Physician

- Sept. 26-27 Annual Meeting of the Missouri Perinatal Association
Oct. 3-4 Second Annual Clinical Neurology Conference
Oct. 16-18 Second Annual Autumn Rheumatology Symposium
Oct. 29-31 Medical Ethics Symposium
Nov. 7-8 21st Annual M.D. Day
Nov. 13-14 The Physician and the Infection Control Committee

Greater Kansas City Radiological Society
Contact: Raymond W. Hartwig, M.D., Dept. of Radiology, Trinity Lutheran Hospital, Kansas City

- Apr. 16 Bone Roentgenology
(Dinner Meeting, Alameda Plaza Hotel)
4 PM Lecture
(University of Kansas Medical Center)

Missouri Baptist Eye Foundation
621 S. New Ballas Rd., Suite 343
St. Louis 63141

- May 5-7 Eye Seminars — Contact Lenses and Intraocular Implants

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

- Apr. 2 Present Status of Antibiotic Therapy
June 4 Chronic Obstructive Pulmonary Disease
Aug. 6 Rheumatic Heart Disease

Please Note!

The scientific program of the 122nd MSMA Annual Session is approved for Category I continuing medical education credit by the Missouri State Medical Association. The program is acceptable for three Prescribed and 14 Elective Hours by the American Academy of Family Physicians. There will be 28 scientific sessions sponsored by 18 medical societies and two voluntary health organizations.

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NEWS

From the Medical Schools

UNIVERSITY OF MISSOURI-KANSAS CITY

Dean Harry S. Jonas has announced three administrative changes at the School of Medicine. Charles B. Wilkinson, M.D. has been appointed associate dean for development. Succeeding Dr. Wilkinson as assistant dean and chairman of the Council on Curriculum is Dr. L. Beaty Pemberton. Virginia Calkins assumes the newly created position of assistant dean of students.

In addition to his duties as associate dean for development, Dr. Wilkinson is executive director of the Greater Kansas City Mental Health Foundation, treasurer of the American Psychiatric Association and a member of the Advisory Panel for the Center for Mental Health and Psychiatric Services. He was a member of the original planning committee for the development of the medical school's six-year program. In his new role, Dr. Wilkinson hopes to develop and organize active alumni groups in an effort to increase the number of qualified minority applicants for the school.

After a three-year term as a docent at the School of Medicine, Dr. Pemberton now teaches general surgery rotations at the Truman Medical Center. As the new head of the Council on Curriculum, he is studying the need for changes in the school's curriculum.

In her new role, Dean Calkins will coordinate the diverse activities that now serve medical students. These include financial aid, student health and counseling. She also will oversee, coordinate and facilitate the various student organizations and will coordinate activities of the Councils on Selection, Evaluation and Curriculum. Holding the rank of assistant professor, Mrs. Calkins has been active in research in medical education and will continue her work with the School's Research in Medical Education (RIME) group.

Dr. Richard H. Kiene, clinical professor of orthopaedic surgery, is the new president of the American Orthopaedic Foot Society. Dr. Kiene is a member of the Dickson-Dively Orthopaedic Clinic in Kansas City.

The American College of Gastroenterology recently elected Dr. Walter Harvey Jacobs as vice-president of that society. Dr. Jacobs has long been

associated with the School of Medicine and Truman Medical Center. As a clinical professor of medicine, he has contributed greatly through the years to the Saturday morning Correlative Series and is a consultant in gastroenterology at Children's Mercy Hospital.

The Hospital Hill Health Services Corporation (HHHSC), the Doctors Corporation for the University of Missouri-Kansas City School of Medicine and the Truman Medical Center, officially announced the acquisition of the Parkville Medical Group on Dec. 24, 1979. The Parkville Medical Group is located in Parkville, which is approximately 12 miles north of downtown Kansas City and midway between downtown and the Kansas City International Airport.

American Cablevision of Kansas City, Inc. has announced the installation of a separate, private, institutional network in conjunction with the installation of Kansas City's subscriber cable-television system. As a part of this network, all city colleges and the University of Missouri-Kansas City, including the School of Medicine, will be interconnected by two-way television cable. Another cable network will link all Kansas City hospitals.

UNIVERSITY OF MISSOURI-COLUMBIA

Dr. J. Donald Easton and Dr. John A. Byer are co-directors of the new information center established at the School of Medicine by the American Parkinson's Disease Association. One of 15 such centers in the United States, its purpose is to provide information to physicians, patients, families and others regarding Parkinson's disease and its treatment.

Patients may request treatment in the Neurology Outpatient Clinic at the University Medical Center, or they will be referred to physicians in private practice in Columbia or in their home communities on request.

An up-to-date library of medical literature regarding Parkinson's disease will be maintained, thereby providing the most recent data on new methods of treatment as they are developed.

A special telephone has been installed at the

APDA Information Center (314-874-2134) or Drs. Easton and Byer can be contacted at the Neurology Department.

Dr. Robert Gaines, assistant professor of orthopedic surgery and director of the Pediatric Orthopedic Surgery and Spine Surgery Section, has begun a three-year term on the state board of directors of the Easter Seal Society for Crippled Children and Adults in Missouri.

Dr. E. Lee Forker has joined the faculty of the School of Medicine as professor of medicine and chief of the Division of Gastroenterology and Liver Disease. He is from the University of Iowa Hospital and Clinics where he had been chief of the liver service.

Dr. Forker was appointed to the faculty at Iowa's College of Medicine in 1965 and has been associated with the departments of physiology-biophysics and internal medicine there. During 1973-1974, he was a visiting professor at Yale School of Medicine.

A graduate of the University of Pittsburgh School of Medicine in 1957, Dr. Forker took his internship at Presbyterian Hospital in Denver and served as a medical naval officer before completing his residency training in medicine at Iowa.

In his new position, Dr. Forker succeeds *Dr. Daniel Winship* as chief of gastroenterology. Dr. Winship remains on the faculty as professor of medicine and now serves as chief of medical services at the Harry S. Truman Veterans Administration Hospital.

ST. LOUIS UNIVERSITY

Thomas Aceto, Jr., M.D., has been named chairman of the Department of Pediatrics and Adolescent Medicine at the School of Medicine. Along with this position, he will become medical director of Cardinal Glennon Memorial Hospital for Children.

Dr. Aceto will assume the positions on April 1. He had previously been chairman of the Department of Pediatrics at the University of South Dakota at Sioux Falls since 1975.

Dennis O'Conner, M.D., who has served as acting medical director at Cardinal Glennon Hospital and chairman of the University's Department of Pediatrics and Adolescent Medicine for three years, has been appointed deputy chairman of medicine at the hospital. Dr. O'Conner served as interim chairman after the death of *Dr. Arthur McElfresh*, who had chaired the Pediatrics Department.



Terry L. Moore, M.D., assistant professor of internal medicine, St. Louis University School of Medicine (right), accepts a \$10,000 check from Leon Neuman, member of the board of directors of the St. Louis Variety Club at the Variety Club's annual awards luncheon. Variety Club President John Londoff is in the background. The funds were raised at the 1979 St. Louis Variety Club Telethon on KSDK-TV and will be used in Dr. Moore's research on juvenile rheumatoid arthritis.

Dr. Aceto has been active in research on a pituitary hormone necessary for normal growth in children. A former director of the Pituitary Agency in Baltimore, he also has served as medical advisor to the Human Growth Foundation.

Thomas Donovan, M.D., assistant clinical professor, Department of Ear, Nose and Throat, participated in a recent conference, "The Hearing Impaired Child: Prevention, Detection and Management." Dr. Donovan is a father of a deaf child.

The conference was geared to help doctors and other health care professionals prevent, detect and treat the hearing impaired child while increasing their knowledge about types, incidence and etiology of the disability. Sessions included early education for deaf children, the social and emotional impact of hearing impairment on the child and family and a lunch with deaf children and their parents to give participants first-hand contact with the family of a hearing impaired child.

Dr. Donovan said the national average for diagnosis of a hearing impaired child is 2.7 years. He said it should be six to 12 months at the most. Late diagnosis results in delayed speech and language education that can be extremely harmful to the child's emotional, social and educational development, he said.

New Members

Richard C. Andrews, D.O., 8441 Carter, Shawnee Mission, Kan. 66212, has become a member of Jackson County Medical Society. Dr. Andrews is a native of Estherville, Iowa, received his preliminary education at the State University of Iowa and his D.O. degree at the College of Osteopathic Medicine and Surgery in 1977. He specializes in internal medicine.

Thomas A. Beller, M.D., 400 Highland's Professional Tower, 6724 Troost Ave., Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Beller is a native of Topeka, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1974. He specializes in internal medicine.

Kenneth A. Buchwach, M.D., 434 Blue Ridge Tower, 4240 Blue Ridge Blvd., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Buchwach is a native of St. Louis, received his preliminary education at Rutgers University and his M.D. degree at the University of Missouri-Columbia in 1974. He specializes in otolaryngology.

Mary C. Cross, M.D., 10405 F. East 42nd, Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Cross is a native of Cincinnati, Ohio, received her preliminary education at Louisiana State University-Baton Rouge and her M.D. degree at Louisiana State University-New Orleans in 1978. She specializes in internal medicine.

John W. Cullen, M.D., Children's Mercy Hospital, 24th and Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Cullen is a native of Englewood, N. J., received his preliminary education at the University of South Dakota and his M.D. degree at the University of New Mexico in 1974. He specializes in pediatrics.

Edward F. Durst, M.D., 301 W. Liberty, Farmington 63640, has become a member of Mineral Area County Medical Society. Dr. Durst is a native of Augusta, Ga., received his preliminary education at the University of Georgia and his M.D. degree at the Medical College of Georgia in 1967. He specializes in general surgery.

Reginald W. Dusing, M.D., McPheeters Clinic, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Dusing is a native of Chicago, Ill., received his preliminary education at Southern Methodist University and his M.D. degree at Baylor College in 1975. He specializes in family practice.

Joseph J. Dzubay, M.D., 4306 Stonecrest Dr., St. Joseph 64506, has become a member of Buchanan County Medical Society. Dr. Dzubay is a native of Minneapolis, Minn., received his preliminary education at Macalester College and his M.D. degree at Creighton University in 1964. He specializes in psychiatry.

Michael G. Francis, M.D., 1004 Kingsridge Dr., Blue Springs 64015, has become a member of Jackson County Medical Society. Dr. Francis is a native of Watertown, S. D., received his preliminary education at the University of South Dakota and his M.D. degree at the University of South Dakota in 1979. He specializes in internal medicine.

Jan D. Garwood, M.D., 900 S. Adams, Nevada 64772, has become a member of West Central County Medical Society. Dr. Garwood is a native of Hays, Kan., received his preliminary education

(Continued on page 168)

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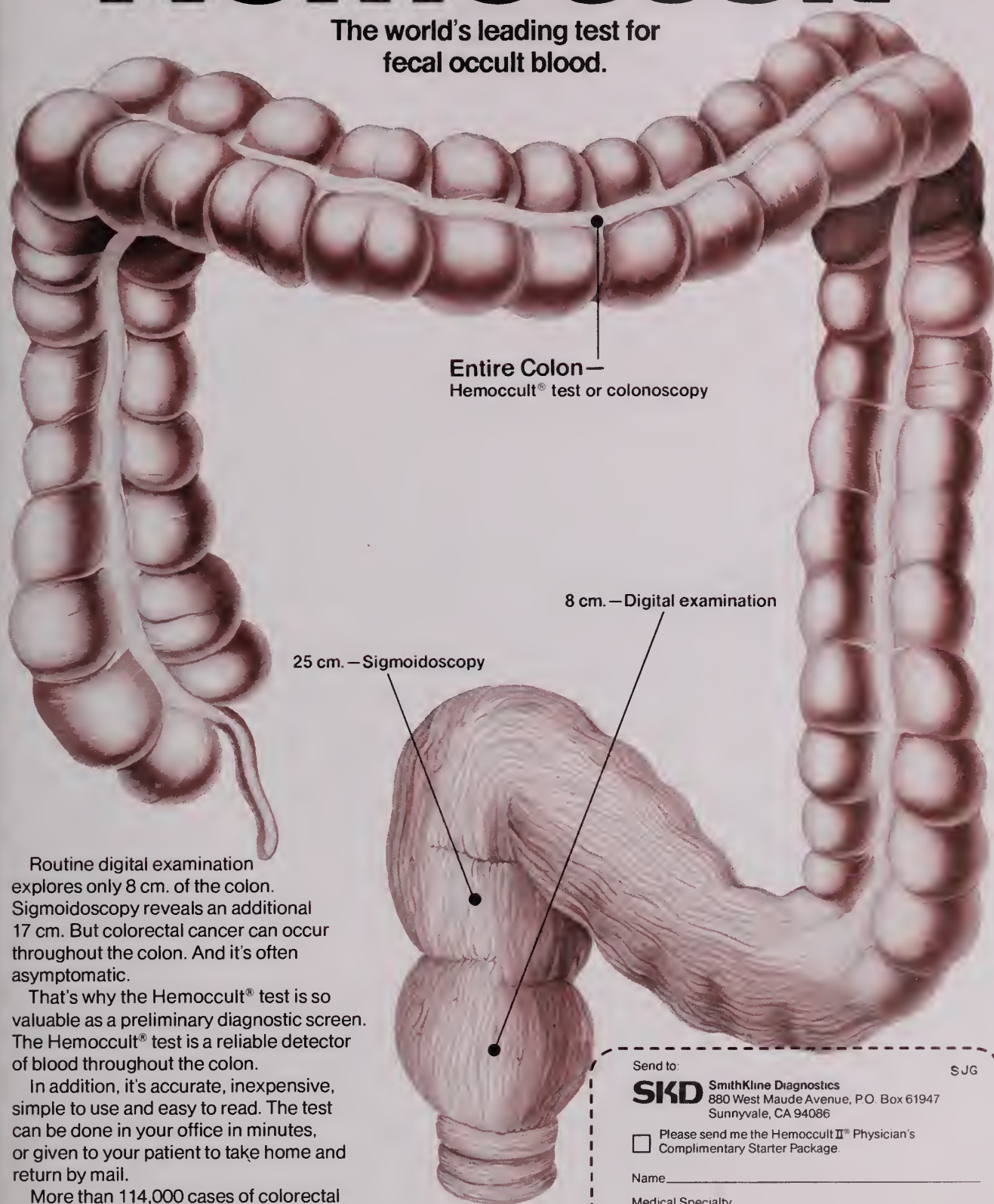


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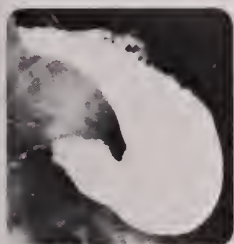
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helps control abnormal motor activity
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Demonstrated smooth muscle relaxant activity.

In this double-blind study, twenty patients having G.I. series and exhibiting spasm were randomly selected to receive either 2 cc. of Bentyl or sodium chloride intramuscularly. Ten minutes after the injection another radiograph was taken . . .

. . . Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.



Pylorospasm has almost totally blocked passage of barium meal.



Barium meal beginning to pass 10 minutes after intramuscular injection of 20 mg. Bentyl.

"The correlation of spasm relief and drug given was excellent."

*This drug has been classified "probably" effective in treating functional bowel/irritable bowel syndrome.

†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference:

King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

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Brief Summary

INDICATIONS

Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the following indications as "probably" effective:

For the treatment of functional bowel/irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS.

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis), paralytic ileus, intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis. **WARNINGS:** In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. **PRECAUTIONS:** Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon. Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension. Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. **ADVERSE REACTIONS:** Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; cycloplegia; increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis, urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation. **DOSAGE AND ADMINISTRATION:** Dosage must be adjusted to individual patient's needs.

Usual Dosage: Bentyl 10 mg capsule and syrup. *Adults:* 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children:* 1 capsule or teaspoonful syrup three or four times daily. *Infants:* ½ teaspoonful syrup three or four times daily (May be diluted with equal volume of water.) Bentyl 20 mg. *Adults:* 1 tablet three or four times daily. Bentyl Injection; *Adults:* 2 mL (20 mg.) every four to six hours intramuscularly only. **NOTE FOR INTRAVENOUS USE.** **MANAGEMENT OF OVERDOSE:** The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine® (bethanechol chloride USP) should be used.

Product Information as of October, 1978.

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MISSOURI MEDICINE
MARCH, 1980

New Members

(Continued from page 166)

at the University of Kansas and his M.D. degree at the University of Kansas in 1974. He specializes in family practice.

Jon R. Hendrickson, M.D., Children's Mercy Hospital, 24th and Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Hendrickson is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1976. He specializes in pediatrics.

Maria S. Kinsella, M.D., 634 N. Grand, St. Louis 63103, has become a member of St. Louis Metropolitan Medical Society. Dr. Kinsella is a native of New York, N. Y., received her preliminary education at Good Counsel College and her M.D. degree at Bellevue Medical College in 1951. She specializes in internal medicine.

Roop Lal, M.D., 8009 Campbell, Apt. 105, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Lal is a native of India, received his preliminary education at Osmania College and his M.D. degree at Osmania Medical College in 1971. He specializes in internal medicine.

William V. Leary, M.D., VA Medical Center, Hwy. 67, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Leary is a native of Owatonna, Minn., received his preliminary education at Carleton College and his M.D. degree at the University of Minnesota in 1937. He specializes in internal medicine.

Philip T. Leese, M.D., 6120 Lamar, Shawnee Mission, Kan. 66202, has become a member of Jackson County Medical Society. Dr. Leese is a native of Detroit, Mich., received his preliminary education at Occidental College and his M.D. degree at Creighton University in 1976. He specializes in internal medicine.

Robert B. Levene, M.D., 511 Elm, Chillicothe 64601, has become a member of Grand River Medical Society. Dr. Levene is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1976. He specializes in internal medicine.

Warner B. Massey, M.D., 1980 N. Westwood, Poplar Bluff 63901, has become a member of

Butler-Wayne-Ripley-Carter County Medical Society. Dr. Massey is a native of Carter, Tex., received his preliminary education at Baylor University and his M.D. degree at the University of Texas in 1969. He specializes in pathology.

Robert D. Meyer, M.D., 121 Ward Parkway, Kansas City 64112, has become a member of Jackson County Medical Society. Dr. Meyer is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri-Columbia in 1979. He specializes in internal medicine.

David G. Mook, M.D., 9734 Wornall Rd., Kansas City 64114, has become a member of Jackson County Medical Society. Dr. Mook is a native of Kansas City, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1976. He specializes in internal medicine.

John O. Palmer, M.D., 4008 E. 107th, Kansas City 65137, has become a member of Jackson County Medical Society. Dr. Palmer is a native of Union City, Pa., received his preliminary education at Western Illinois University and his M.D. degree at the University of Illinois in 1977. He specializes in internal medicine.

Kent S. Quinn, M.D., 187 36th Ave. N.W., Rochester, Minn. 55901, has become a member of Grand River Medical Society. Dr. Quinn is a native of Grinnell, Iowa, received his preliminary education at the University of Iowa and his M.D. degree at the University of Iowa in 1977. He specializes in radiology.

Pepito C. Rivera, M.D., 225 W. Hayden, Marceline 64658, has become a member of Grand River Medical Society. Dr. Rivera is a native of the Philippines, received his preliminary education at Far Eastern University and his M.D. degree at Far Eastern University in 1968. He specializes in general surgery.

Herman Sardjono, M.D., 88 Gravel St., Cassville 65625, has become a member of Ozarks County Medical Society. Dr. Sardjono is a native of Hong Kong, received his preliminary education at the University of Vienna and his M.D. degree at the University of Vienna in 1973. He specializes in internal medicine.

Frederick M. Smeltzer, M.D., Lake of the Ozarks General Hospital, Osage Beach 65065, has become a member of Lake of the Ozarks County Medical Society. Dr. Smeltzer is a native of Columbus, Ohio, received his preliminary education at Ohio State University and his M.D. degree at Ohio State University in 1972. He specializes in radiology.

New Student Members

University of Missouri-Columbia Student Medical Society

Donald K. Allcorn
S. Chris Beever
Russell L. Benson
Tad Berry
Richard Bowles
John Brabson
Michael Fedak
Brian J. Finley
Robert L. Frederickson
Arthur G. Freeland
Michael J. Friedman
Scott M. Friedman
Margaret J. Goldenhersh
Brian Gross
Kevin R. Ham
Eugene Hansbrough

Michael E. Hayek
Robert E. Holland
Marty Kanne
Cynthia Z. Kenneally
David L. Lawson, Jr.
James W. Long
Perry Lovinggood
Ann C. Lutzeier
John Kevin Mackey
Gregory A. Markway
Kevin B. Mayfield
Randall E. Meyer
R. Gideon Morrison
Harvey Moskovitz
Michael A. Murphy
Yvonne S. Nelson

John Powell
Kathryn M. Przasnyski
Daniel T. Saunders
Ann Schumacher
David L. Shackelford
Randy B. Silverstein
Stephen R. Smith
Paul T. Stockmann
Charles H. Tillman, Jr.
Edmund Tsoi
Thomas R. Walsh
Kimberly D. Webb
Larry Weinhaus
Michele West
Jeffrey L. Wheeler
Allan N. Zacher

Washington University Student Medical Society

Dianne Budd-Stofferahn
Margaret Jensen Cheadle

Lesley A. Furlong
Lynne S. Kaminer

Michael Lenardo
Lawrence D. Piro

FINANCIAL STATEMENT FOR THE YEAR 1979

LENNERTSON & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
ST. LOUIS, MISSOURI 63144

January 25, 1980

EXHIBIT B

Missouri State Medical Association
113 Madison
Jefferson City, Missouri 65101

Gentlemen,

The balance sheet of Missouri State Medical Association, a non-profit Missouri corporation, has been examined as of December 31, 1979, and attached are the related statements of income and reserves and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion the aforementioned financial statements present fairly the financial position of Missouri State Medical Association at December 31, 1979, and the results of its operations and the changes in its financial position for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours very truly,
LENNERTSON AND COMPANY

Missouri State Medical Association Income Statement for the Year 1979

Particulars	General Activities	Journal Publication	Total
Dues Received (including \$3.00 per member annually for the Journal)	\$495,294	\$ 13,802	\$509,096
Rentals—Annual Session	13,200		13,200
Annual Session Contributions	1,700		1,700
Subscriptions to the Journal—			
Nonmembers		2,858	2,858
Advertising Space—The Journal		35,955	35,955
Investments—Interest and Dividends	62,644		62,644
Collection Fees on AMA Dues	6,929		6,929
Commission Collection Service	7,679		7,679
Reimbursed Fees for Services	12,600		12,600
Net Profit-Wholly Owned Subsidiaries			
Missouri Medical Insurance	167,221		167,221
MSMI, Inc.	54,578		54,578
Total Income	\$821,845	\$ 52,615	\$874,460

EXHIBIT A

Missouri State Medical Association Balance Sheet, December 31, 1979

Assets			
<i>Current Assets</i>			
Central Trust Bank (Treasurer's Acct.)	\$ 73,124		
Central Trust Bank (Secretary's Acct.)	651		
Boatmens Bank	7,296		
Petty Cash Fund	25		
Certificates of Deposit	295,000		
Total Current Assets		\$ 376,096	
<i>Investments (Exhibit C-2)</i>			
Certificates of Deposit	\$ 211,674		
Corporate Bonds	5,000		
Corporation Stocks	80,232		
Wholly Owned Subsidiaries —			
Equity Investment	2,763,096		
Total Investments		3,060,002	
<i>Accounts Receivable</i>			
Advertisers	\$ 4,047		
Others	357	4,404	
Dues Receivable — Exhibit D (See Reserve-Contra)		8,574	
<i>Fixed Assets (At Cost)</i>			
Land	\$ 26,000		
Building	136,350		
Furniture and Fixtures	79,930		
Total	\$ 242,310		
Less Reserve for Depreciation	47,069	195,241	
Advance for Travel Expense		907	
		<u>\$3,645,224</u>	
Liabilities			
<i>Current Liabilities</i>			
<i>Accounts Payable:</i>			
Accrued Interest	\$ 74,578		
Supplies and Expenses	13,162		
Due Missouri Medical Insurance Co.	157,707		
Due American Medical Association	450		
Due Mo. State Medical Foundation	4,628		
Due County Societies	33		
Total Current Liabilities		\$ 250,555	
<i>Deferred Credit to Income</i>			
(Advance Payments)		178,644	
<i>Reserve for Uncollected Dues</i>			
(See Receivable)		8,574	
<i>Note Payable — Boatmens Bank</i>		1,749,948	
<i>Subordinated Notes</i>		1,018,716	
<i>Reserve for Future Activities —</i>			
Balance 1/1/79	\$ 387,742		
Gain on Sale of Securities	7,336		
Reinvestment of Permanent Investment Income	8,750		
Excess of income over expense — Exhibit B ..	34,956	438,784	
		<u>\$3,645,224</u>	

Expenses			
Salaries	\$192,391	\$ 17,198	\$209,589
The Journal—Paper, Printing, Etc.		73,188	73,188
Contributions	4,500		4,500
Consultation Fee	4,500		4,500
Commission on Journal Advertising		4,973	4,973
Commission and Meeting Expenses	115,129		115,129
Custodian Fees—Investments	363		363
Depreciation	12,105	942	13,047
Dues and Subscriptions	1,342		1,342
Employees' Pension Plan Contribution	17,808	3,689	21,497
Equipment Purchases, Rentals and Repairs in lieu of Depreciation	4,318	387	4,705
Insurance—General	2,105		2,105
Insurance—Blue Cross	6,958	816	7,774
Interest Expense	283,755		283,755
MMPAC—Administrative Expenses	3,958		3,958
Membership—Data Processing	8,602		8,602
Occupancy Expense	8,394	852	9,246
Postage	9,844		9,844
Professional Fees	10,689	1,000	11,689
Public Relations Program	1,647		1,647
Reinvestment Fixed Income	8,750		8,750
Stationery, Printing and Office Supplies	8,309		8,309
Student Awards	400		400
Taxes—Payroll	11,353	1,249	12,602
Taxes—Real Estate	767		767
Telephone and Telegraph	9,708	946	10,654
Traveling Expenses—Executive Secretary and Assistants	6,569		6,569
Total Expenses	\$734,264	\$105,240	\$839,504
Excess of Income over Expenses	\$ 87,581	\$(52,625)	\$ 34,956

EXHIBIT C-1

Missouri State Medical Association
Statement of Commissions and Meeting Expenses
for the Year 1979

Annual Session	\$ 42,707
Council	24,291
Delegates to AMA	28,261
Public Affairs	12,225
Woman's Auxiliary	3,931
Commissions:	
Commission on Medical Economics, Third Party	
Medicine, and Government Relations	\$ 48
Commission on Continuing Education and	
Health Manpower	1,947
Commission on Medical-Legal Affairs	170
Committee on Interspecialty Medicine	172
Committee on Impaired Physicians	210
Committee on Medical Affairs	800
Committee on Socio Economics	367
Total	<u>3,714</u>
	<u>\$115,129</u>

EXHIBIT C-2

Statement of Investments December 31, 1979

Description	
Mercantile Trust—C.D. 12% due 12/31/80	\$ 170,000
Citizens Savings 9.47% due 6/20/80	41,674
Pacific Gas and Electric Co., 4½% due 6/1/90	5,000
Johns-Manville 200 shares	5,582
Central and Southwest Corp. 400 shares	6,346
American Home Products Corp. 150 shares	3,007
Kraft 90 shares	4,158
Baker Oil Co. 330 shares	5,940
Interco 420 shares	12,408
J. P. Morgan & Co. 244 shares	5,162
International Tel. & Tel. Corp. 100 shares	6,941
CIT Financial Corp.—Note	21,000
A. T. & T. 65 shares	4,125
International Paper 145 shares	5,563
Total Cost (Market Value \$311,719)	\$ 296,906
Wholly Owned Subsidiaries:	
M.S.M.I., Inc.—Equity Investment	51,626
Missouri Medical Insurance Co.—Equity Investment	<u>2,711,470</u>
Total	<u>\$3,060,002</u>

EXHIBIT D-1

Missouri State Medical Association
Dues Receivable and Membership by Societies
December 31, 1979

MEMBERSHIP

Societies	Junior	Active	Honor	Total	Unpaid Dues
Andrew		3		3	
Audrain		23	2	25	
Barton		4	1	5	
Boone	13	252	13	278	\$1,155.00
Buchanan		95	17	112	
Butler-Wayne-Ripley		62	3	65	312.50
Callaway		13	5	18	125.00
Cape Girardeau		57	3	90	375.00
Chariton-Macon-Monroe-					
Randolph		20	6	26	375.00
Clay	4	131	3	138	238.75
Clinton		3	1	4	
Cole		62	9	71	375.00
Cooper		5	1	6	
Dallas-Hickory-Polk-Dade ..		5	3	8	
Dunklin		19		19	375.00
Franklin-Gasconade-Warren ..		33	4	37	500.00
Grand River		25	5	30	
Greene		272	25	300	250.00
Henry		5	4	9	
Howard		4		4	
Jackson	15	953	165	1,133	1,010.00
Jasper		85	12	97	212.50
Jefferson		22	2	24	250.00
Johnson		10	4	14	
Laclede		8		8	125.00
Lafayette-Ray		21	2	23	
Lake of the Ozarks		13	2	15	
Lewis-Clark-Scotland		1		1	
Marion-Ralls-Shelby		31	2	33	
Mid Missouri		32	3	35	375.00
Mineral Area		30	3	33	375.00
Moniteau		2	1	3	
Montgomery		1		1	
North Central		2		2	
Northwest Missouri		22	1	23	125.00
Ozark	1	39	9	49	385.00

(Continued in next column)

Pemiscot		11		11	
Perry-St. Genevieve		14	2	16	
Pettis		27	4	31	
Pike		9		9	
Platte		4		4	
St. Charles-Lincoln		66	2	68	250.00
St. Louis Metropolitan	171	1,922	256	2,349	760.00
Saline		10	1	11	
Semo		35	4	42	
South Central		22	2	24	250.00
Webster		2		2	
West Central		25	6	34	375.00
Totals	204	4,548	591	5,343	\$8,573.75

(A)

(A) Delinquent dues of members at December 31, 1979 carried at the request of local Societies. Other delinquent members were dropped from membership in accordance with the by-laws.

EXHIBIT E

Missouri State Medical Association
Statement of Source and Application of Funds
For the Year 1979

Funds Applied		
Purchase of Fixed Assets		\$ 5,385
Purchase of Fixed Investments		380,642
Increase in Accounts Receivable		179
Repayment of Bank Note		<u>453,054</u>
Total Funds Applied		\$839,290
Funds Acquired		
Excess of income over		
expenses for year	\$34,956	
Add Depreciation (non-cash)	<u>13,047</u>	
Funds provided from operations		\$ 48,003
Collections on Subordinated Notes		614,546
Increase in Deferred Credits to Income		30,747
Decrease in Travel Advances		256
Refund of Federal Income Tax		25
Reinvestment of permanent investment		
income		8,750
Gain on Sale of Securities		<u>7,336</u>
Total Funds Acquired		709,693
Balance—Decrease in Working		
Capital		<u>\$129,597</u>
Accounted for as follows:		
Increase in Current Liabilities		\$118,715
Decrease in Cash		25,882
Increase in Certificates of Deposit		<u>(15,000)</u>
Balance—Decrease in Working		
Capital		<u>\$129,597</u>

Missouri State Medical Association
Notes to Financial Statements
December 31, 1979

1. **Investments.** Permanent investments with a cost of \$3,060,002 were confirmed by a statement from bank and savings and loan association. Equity investment in Missouri Medical Insurance Company is obtained from unaudited financial statements prepared by the company's employees.

2. **Building, Equipment, and Depreciation.** The building occupied by the Association with a cost of \$136,380 will be depreciated over a useful life of 30 years and the furniture and fixtures in the amount of \$79,930 has a 10 year useful life. Depreciation is computed on a straight line basis.

Purchases of small equipment, rentals and repairs for the year in the sum of \$4,704 were charged to expense in lieu of depreciation.

3. **Dues and Assessments.** Membership dues and assessments are taken into income on a cash receipt basis whereas all other accounts are maintained on the accrued basis. The following are the dues and assessments for each member in effect during the year 1979.

	Active	Junior
Journal	\$ 3.00	\$ 3.00
Association General Fund	112.00	7.00
Foundation Assessment	10.00	
Mo. State Medical Assn. Dues and Assessments	\$125.00	\$10.00
American Medical Association	250.00	35.00
Totals	<u>\$375.00</u>	<u>\$45.00</u>

4. **Notes Payable—Boatmens Bank.** The original loan is dated February 14, 1978 in the amount of \$2,500,000 with a due date of February 14, 1981. Interest rate is 1% over prime and is secured by securities held by Mercantile Trust Company and 99.8% of the issued shares of Missouri Medical Insurance Company. Payments on the bank notes are 75% of the collections made on the subordinated notes.

5. **Subordinated Notes.** The notes are issued without interest or maturity date and interest or repayment is at the discretion of the council of the Missouri State Medical Association, and the restrictions contained in the subordinated notes.

6. **Income Taxes.** The Internal Revenue Service requires that the Association pay taxes on its unrelated business income. For the year ended December 31, 1979, the Association had a gain of \$2,460.87 on their unrelated business income, resulting in a tax of \$747.00.

FINANCIAL STATEMENT

MISSOURI STATE MEDICAL FOUNDATION

DECEMBER 31, 1979

LENNERTSON & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
ST. LOUIS, MISSOURI 63144

January 29, 1980

Missouri State Medical Foundation
113 Madison
Jefferson City, Missouri 65101

Gentlemen,

The balance sheet of Missouri State Medical Foundation was examined as of December 31, 1979, and the related statements of support, revenue and expenses, and changes in fund balances for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned statements present fairly the assets and liabilities of Missouri State Medical Foundation at December 31, 1979, arising from cash transactions, and the revenues collected and expenditures made by it during the year then ended, on a basis consistent with that of the preceding year.

Yours very truly,
LENNERTSON AND COMPANY

EXHIBIT A

Missouri State Medical Foundation Balance Sheet (Cash Basis), December 31, 1979

Assets

<i>Current Assets</i>		
Cash—Central Trust Bank	\$ 54,294.24	
Savings Account	1,561.35	
C-D Mercantile Trust—Due 1/2/80	144,000.00	
Accounts Receivable—Mo. State Medical Assoc.	4,500.00	
Total Current Assets		\$204,355.59
Loans Receivable—Medical Students	\$696,721.72	
Less Reserve for Losses	19,969.20	
		<u>\$881,108.11</u>

Fund Reserve

<i>Balance January 1, 1979</i>		\$816,783.45
<i>Additions for the Year 1979</i>		
Interest on Student Loans	\$ 15,748.02	
Interest on Bank Deposits	6,163.43	
Contributions (detailed below)	10,686.15	
Assessment of Members, Active \$10.00	43,990.00	
		<u>76,587.60</u>
		\$893,371.05
<i>Less Expenses for the Year 1979</i>		
Administrative Services	\$ 6,600.00	
Professional Fees	950.00	
Printing, Meeting and Miscellaneous	486.50	
Provision for Losses on Student Loans	4,226.44	
		<u>12,262.94</u>
		<u>\$881,108.11</u>

Contributions

Individual	\$ 50.00
Corporate	4,775.00
Tribute	100.00
Physicians	500.00
Others	5,261.15
Total Contributions	<u>\$10,686.15</u>

Missouri State Medical Foundation Notes to Financial Statements December 31, 1979

- Income.* Accrued interest on outstanding loans at December 31, 1979 amounted to \$45,762.40 and is not included in the loan balance in Exhibit A.
 - Student Loans.* Summary of Loans Receivable.
Loans Receivable January 1, 1979
- | | |
|--|---------------------|
| Loans made during the year | \$686,915.43 |
| | <u>62,200.00</u> |
| | \$749,115.43 |
| Less Loan Repayments | 52,393.71 |
| Loans Receivable December 31, 1979 | <u>\$696,721.72</u> |
- Reserve for Losses.* This reserve is carried to offset uncollectable loans and to charge off student loan balances in the event of death of the borrower.

DO IT TODAY!

*Remember that your contribution to the MSMF is
tax-deductible. This coupon is for your convenience.*

TO: MISSOURI STATE MEDICAL FOUNDATION
P.O. Box 1028, Jefferson City, Mo. 65102

I enclose my donation of \$..... for the MSMF STUDENT LOAN FUND.

NAME

ADDRESS

Please Make Checks Payable to Missouri State Medical Foundation.

★ Another popular custom is to include a bequest to the Missouri State Medical Foundation in your last will and testament.

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Burroughs Wellcome Co.	112	Medical Protective Company	145
Comp-U-Med Systems	142	Merrell-National, Inc.	118, Insert (118-119), 158, Insert (158-159), Insert (166-167), 167, 168
The Goetze-Niemer Co.	145	Midwest Organ Bank	166
Fred S. James & Co. of Missouri, Inc.	159	MOMEDICO	110
Forrest T. Jones & Company, Inc.	113	Munns Medical Supply	151
Stanley H. Kaplan Educational Center	163	Parke-Davis	119
Eli Lilly & Company	120	Roche Laboratories, Inc.	111, 175, 176
		William H. Rorer, Inc.	Insert (142-143)
		Smith Kline & French .	Insert (158-159), Insert (166-167)

CLASSIFIED ADS

M.D. WANTS TO RETIRE — After 40 years, Lincoln County. Town of 3,000 (15,000 in immediate area, 15 miles from site of proposed new GM Plant). Only two MDs in town-county seat. 1979 fees 61M; 1978 fees 89M; 1977 fees 106M. With or without office real estate. Call Bob Croghan, C.P.A., St. Louis, (314) 843-1500, for information.

EMERGENCY PHYSICIAN needed for full-time career oriented positions in Kansas City, Missouri and Cheyenne, Wyoming. ACLS certification necessary, experience and requirements for Board Certification preferred. Unique organization, multiple hospital group owned by all the physicians. Profits returned to physician, not to entrepreneur. Reply to Box CA-456, Missouri State Medical Association, P.O. Box 1028, 113 Madison, Jefferson City, Missouri 65102.

IS YOUR PRACTICE FOR SALE? — Most medical practices represent a lifetime investment, yet few are ever sold for their value as a going business. Health Resources provides merger brokerage services to medical practices and hospitals. If you plan to retire or cut back your practice in the next five years, now is the time to plan for a successful sale — when your practice is at its optimum. For more information, call us in confidence: Health Resources, Ltd., River Road Professional Building, Box 12220, Kansas City, Mo. 64152. (816) 587-0920.

EMERGENCY ROOM PHYSICIANS — Salem Memorial District Hospital is seeking two doctors to share coverage of the Emergency Room the entire weekend and evenings of week-days. This is a full-time position and would require a one-year commitment. Salem is a community of over 5,000 with a trade area of 20,000. Located in the Ozarks, national forest, streams, trout fishing, golf, tennis and country club. Excellent schools. Fifty-bed, modern J.C.A.H. hospital. Contact Ed Farnsworth, Salem Memorial District Hospital, P.O. Box 430, Salem, Missouri 65560 (314) 729-6626.

LIPID RESEARCH CENTER — is seeking Physician Assistant for national research project in coronary prevention. Will be member of caretaker team and participate in evaluation of new patients, counseling and follow-up of patients. Applicant must be certified and graduate of AMA-approved Physician Assistant program. Previous experience preferred. Competitive salary and excellent benefits. Send resume to Boas Gonen, M.D., Lipid Research Center, Washington University School of Medicine, 4566 Scott Ave., Box 8046, St. Louis, MO 63110.

PHYSICIAN WANTED — For correctional institution. 30- to 40-hour work week. Fringe benefits. Salary negotiable. Contact Warden Donald Wyrick, P.O. Box 236, Jefferson City, Missouri 65102 or call (314) 751-3224.

For MSMA Impaired Physician Program Assistance,

Call 314-636-5744

24-Hour Telephone Answering Service. Calls Are Confidential.



Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The Lafayette County Medical Society held its 60th anniversary meeting at the Arcade Hotel in Higginsville on Dec. 28, 1939. President C. T. Ryland, Lexington, acted as toastmaster and spoke about the history of the Society which was organized on Nov. 3, 1879. The following physicians were elected as officers for 1940: president, G. W. Fredendall, Lexington; president-elect, W. E. Martin, Odessa; and secretary-treasurer, W. E. Koppenbrink, Higginsville.

The Randolph-Monroe County Medical Society met at the Moberly Public Library on Dec. 12, 1939 with M. P. Hunter, M.D. in the chair. Officers elected were Dr. M. R. Noland, Moberly, president; Dr. W. R. Langston, Moberly, vice-president; and Dr. F. L. McCormick, Moberly, secretary-treasurer. Dr. C. C. Smith discussed the barber examination law and moved that the Society oppose this selection of doctors for the examinations.

The Dallas-Hickory-Polk County Medical Society held a special meeting and banquet in Bolivar on Dec. 13, 1939 in honor of the 89th birthday of Dr. J. F. Roberts of Bolivar. Dr. Roberts has practiced medicine for 67 years, is still active and goes to his office every day.

TWENTY-FIVE YEARS AGO

"Dr. Andy Day" was celebrated in Mount Vernon, Ill. on the 90th birthday of Dr. Andy Hall, father of Andy Hall, Jr., M.D. of St. Louis.

A special tribute was recently paid to L. E. Rolens, M.D., Granby, at a reception for faculty and school board members for his having served 33 years as a school board member.

Gordon C. Sauer, M.D., St. Joseph, addressed the public school nurses of Clay County at a meeting at Norelay School on January 12.

Carl R. Ferris, M.D., Kansas City, was added as a director of the chapter board of the Kansas City-Jackson County Chapter of the American

Red Cross on January 27.

Directors of the Missouri Heart Association held a meeting in Kansas City on January 9 with J. Will Fleming, M.D., Moberly, president, and Earl Loyd, M.D., Jefferson City, president-elect, presiding.

Freeman Hospital Staff elected Dr. S. D. Papp, Joplin, as president, Dr. Lawrence S. Crispell as staff secretary and Dr. B. E. DeTar, Jr. as vice-president.

New officers of the Medical Staff of Sisters' Hospital in St. Joseph are Dr. Robert W. Kieber, president; Dr. Harold J. Brumm, president-elect; and Dr. B. E. DeTar, Jr. as vice-president.

TEN YEARS AGO

Dr. George T. Gafney, St. Louis, a member of the medical staff at St. John's Mercy Hospital, received the Mercy Award from the Religious Sisters of Mercy for outstanding service to the hospital and to the healing arts.

Dr. Louis P. Hetlage, Troy, was named "Man of the Year" by the Troy Chamber of Commerce for his contributions to the community and to his profession.

Dr. John A. Buesseler, professor of ophthalmology at the University of Missouri School of Medicine, has been appointed vice-president for health affairs and chief executive officer of the Texas Tech University Medical Center and dean of the Medical School.

Fifteen senior students at Washington University School of Medicine have been elected to membership in Alpha Omega Alpha. Missourians to be initiated include Bruce H. Becker, Robert C. Brasch, Stephen A. Kamenetzky, Michael S. Milder and Maryland A. Mollman. All are from St. Louis.

The Jefferson County Health Department Board of Directors has named Dr. Frank C. Kozal, Crystal City, to fill the position recently left vacant by Dr. Carl E. Rice, who resigned after 16 years of service as director of the department.

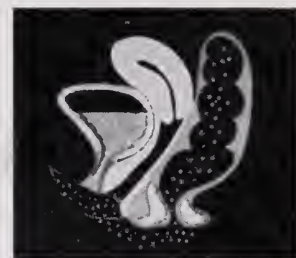
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For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days



- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice

- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).



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Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of

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**Bactrim fights uropathogens in the
urinary tract/vaginal tract/lower intestinal tract**

Please see reverse side for summary of product information.

Missouri Medicine

Vol. 77, No. 4

(ISSN 0026-6620)

April, 1980

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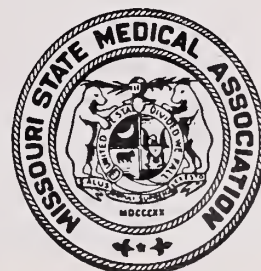
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Part I

MSMA
News
Round-Up

Vaginal
Atresia
Neonatal and
Adolescent Presentations



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OCCUPATION: <i>Insuring nearly 1200 Missouri Physicians</i>			ASSETS <i>\$5,026,399</i>	ANNUALIZED PREMIUMS <i>\$2,367,104</i>	
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BRIEF HISTORY: *A stock insurance company offering occurrence form, medical professional liability policies; founded by the Missouri State Medical Association*

PHYSICAL EXAM: *1. Physicians as owners, officers and directors; including physicians on an Underwriting/Claims Committee that reviews applications, classifications, claims and provides direction and assistance. 2. A close working relationship with MSMA and its component societies. 3. Professional staff assuring prompt, personal service. 4. Reinsurance with a prominent American insurance company providing protection from large losses.*

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TREATMENT: *1. Suspend the required purchase of MSMA Subordinated Notes to allow for certain recapitalization activities to go forward. 2. Maintain direct, daily participation in company decisions by insured physicians. 3. Maintain reasonable price based on Missouri loss experience. 4. Maintain credibility through continued full disclosure of all finances.*

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Indications: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas and relief of local pain and discomfort following anorectal surgery.

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Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

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Anusol-HC is not for ophthalmic use.

Dosage and Administration: Anusol-HC Suppositories — Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at

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Anusol-HC Cream — Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain patient comfort with regular Anusol Ointment.

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References should be arranged at the end of the article in the order in which the references are cited in the text. The reference should give name of author, title of article, name of periodical, volume number, initial page number and year. Authors are responsible for reference accuracy.

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NEWS ROUND - UP

April, 1980

Important bills await Legislative action

The April 30 adjournment date of the 1980 General Assembly is drawing near with many bills of interest to medicine still awaiting action.

For the first time, the House has passed a "Definition of Death" bill (HB 1444). The bill is now awaiting Senate action and, if it is reached prior to adjournment, stands a good chance for final passage.

Two controversial issues opposed by the MSMA have drawn much attention from the press, the public and the Legislature. Bills to permit optometrists to use topically applied drugs in the eye were introduced into both houses. At this time,

neither bill is in position for passage but it is still possible that an amendment could be added to another bill which would accomplish this change in optometric practice. The MSMA is monitoring closely any bill which could be used as a vehicle for such an amendment.

Dr. Walterscheid elected President of State Board

John H. Walterscheid, M.D., of Hannibal, was recently elected President of the Missouri State Board of Registration for the Healing Arts. Dr.



Dr. Walterscheid

Walterscheid, who also serves the MSMA as Councilor from the Second District, was first appointed to the State Board in 1977 by Governor Joseph Teasdale.

Board members also elected Mario G. Gonzalez, M.D., of Warrensburg, as Secretary.

Officers of the State Board are elected for one-year terms by the other members of regulatory body.

Other members of the State Board are James R. Criscione, M.D., of St. Louis; Lee E. Davidson, D.O., of Kansas City; Salvatore Riggio, M.D., of St. Louis; Wilber B. Spalding, Jr., M.D., of Kansas City; and William H. Voss, D.O., of Jefferson City.

The State Board is responsible for licensure and disciplinary actions concerning Missouri physicians. The Board of Registration for the Healing Arts can be contacted by writing at 3523 N. Ten Mile Drive, Jefferson City, Mo. 65101 or by calling (314) 751-2334.

The other emotional issue has been a concerted effort to legalize the sale, manufacture and use of Laetrile in Missouri. House Committee Substitute for House Bill 1095, 1548 sailed through the House last month with an overwhelming majority. Although the bill received an early hearing by a Senate Committee, the Committee decided to study the issue for a couple of weeks before deciding whether to report the bill to the full Senate. This delay could prevent passage unless the Senate decides to make a special effort to reach the bill.

Another issue requiring many hours of effort by the MSMA Legislative Committee has been the attempts by registered nurses to change the state's Medicaid laws to allow for direct reimbursement to R.N.'s. To date, these provisions have been eliminated from all pending bills. Again, however, an amendment at a later date is possible.

Senate Bill 546, which would establish a separate Department of Health in Missouri, has been passed by the Senate and is on the House docket for consideration later this month.

Several other bills of interest to physicians are on the calendars of the two houses, but with April 30 drawing nearer it is not likely many will be reached. A final report on the actions of the General Assembly will be included in next month's Missouri Medicine.

CONFIDENTIAL 24-HOUR IMPAIRED PHYSICIAN HOTLINE

If you, a colleague or loved one has a problem with alcohol, drug abuse, mental or physical impairment; the MSMA Impaired Physicians Committee can help!

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Items of interest to Missouri physicians

Medical students form components

Medical Student Component Societies have now been formed at each of the four medical schools in Missouri. The new component societies were established following action by the MSMA House of Delegates last November when student membership in the Association was approved.

Although membership recruitment is in its initial stages, the number of student inquiries for MSMA and AMA membership has been good. During organizational meetings, students attending have shown interest in the Association's legislative activities and the amount of input students will have in the MSMA.

Following are the number of applications, for membership received from the four medical schools as of April 1:

St. Louis University: 3 Members

Washington University: 31 Members

University of Missouri - Columbia: 55 members

University of Missouri - Kansas City: 3 members

Two Fall trips offered to members

Two Fall trips are being offered by M.S.M.I., Inc., for members of the Missouri State Medical Association. Members should have received informational brochures by this time, but, if not, additional material is available from MSMA Headquarters.

Both trips are handled by Intrav and feature a non-regimented schedule plus medical seminars.

The "Far East Adventure" departs September 11 from Kansas City or St. Louis and returns September 25. The tour includes stops in Tokyo, Kyoto, Singapore and Hong Kong with an optional trip to China available.

The "French Riviera Adventure" departs from Kansas City and St. Louis on October 8 and returns on October 16. The Adventure is being offered in response for requests by members for a low cost vacation to Monte Carlo.

Basic cost for the "Far East Adventure" is \$2,589 per person from St. Louis or \$2,619 per person from Kansas City. Cost of the "French Riviera Adventure" is \$998.

Residents reminded of special workshop

Resident physicians and other doctors planning to enter practice for the first time are reminded that a special workshop, "Establishing Yourself in Medical Practice", will be held May 15-16 at the Airport Marriott in St. Louis.

The two-day program is designed to provide physicians with essential information about the business aspects of setting up and operating a medical practice. Participants in past MSMA-sponsored workshops for resident physicians were enthusiastic about the program.

If you would like to attend, please register as soon as possible. The registration fee is \$70 for members of the MSMA and \$80 for non-members.

For additional information, see the January issue of the MSMA News Round-up or write to the MSMA, Box 1028, Jefferson City, MO 65102.

Tri-Lakes Medical Society becomes new component

A new component medical society has been organized for the physicians in the Missouri Counties of Stone and Taney. These two counties were formerly part of the Ozarks Medical Society.

During an organizational dinner meeting on March 22, in Branson, MSMA President Andrew McCause addressed the new members.

The following new officers have been elected for the Tri-Lakes Medical Society: Roy Gillespie, M.D., Branson President; and Thomas Huffman, M.D., Branson, Secretary.

Former MSMA employee gives birth to girl

Mrs. Beckey Hankins, former Director of Communications for the MSMA, gave birth to a girl, Rachael, on March 28 in Jefferson City.

Mrs. Hankins, who had been with the MSMA for about 2½ years, submitted her resignation effective March 1. At the present, Michael Porter, Director of Management Services, has assumed many of the duties in the area of communications.

Association prepares additional PSA's

The MSMA is preparing eight new Public Service Announcements for release to radio stations later this month. The PSA's will focus on health issues of interest during the spring and summer seasons.

The four tapes will supplement three PSA's sent to radio stations in early January. Early response has indicated several stations are using the first PSA's and it is planned to continue the project throughout the year.

Physician Distribution in the U.S.

There is one physician for every 535 persons in the United States.

Of the nation's 375,811 active physicians, 91.2 per cent are engaged in direct patient care, bringing the ratio of physicians, excluding those who are employed by the U.S. government, to 187 physicians per 100,000 persons.

Washington, D.C. ranks first among cities in the number of physicians, with 524 per 100,000 population. South Dakota ranks last among the states with 106 physicians per 100,000 people.

These facts are contained in the recently released American Medical Association's 16th edition of *Physicians Distribution and Medical Licensure in the U.S., 1978*.

Information covering the ratio of physicians, excluding those in government (federal), in the U.S. reveals that New England has the highest ratio (238) and the lowest (134) is in the South Central division (Alabama, Kentucky, Tennessee and Mississippi).

The latest U.S. physician ratio to population of 187 per 100,000 is approximately 23 per cent more than the 1971 figure of 152 physicians per 100,000 population.

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations,

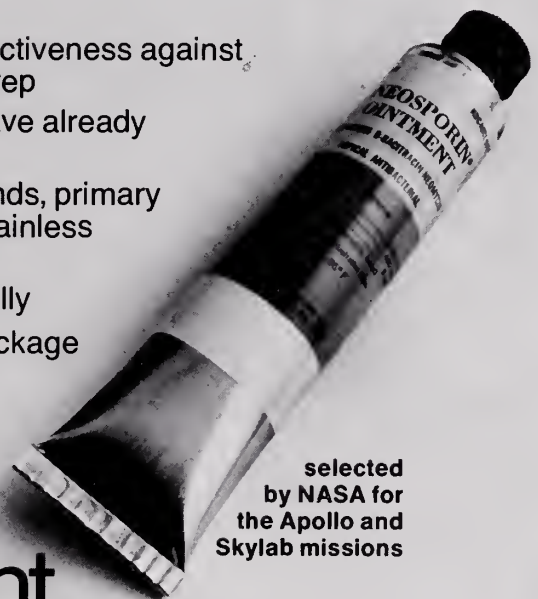
prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

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the Bowels



Constipation



Chronic
Constipation



Habituation to
Laxatives



Abuse of
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Prescribing Information

ACTIONS: Perdiem™, with its gentle action, does not produce disagreeable side effects. The vegetable mucilages of Perdiem™ soften the stool and provide pain-free evacuation of the bowel. Perdiem™ is effective as an aid to elimination for the hemorrhoid or fissure patient prior to and following surgery.

COMPOSITION: Natural vegetable derivatives: A unique blend of psyllium and senna (Plonago Hydrocolloid with Cassio Pod Concentrate).

INDICATION: For relief of constipation.

PATIENT WARNING: Should not be used in the presence of undiagnosed abdominal pain. Frequent or prolonged use without the direction of a physician is not recommended. Such use may lead to laxative dependence.

DIRECTIONS FOR USE—ADULTS: Before breakfast and after the evening meal, one to two rounded teaspoonfuls of Perdiem™ granules should be placed in the mouth and swallowed with a full glass of warm or cold beverage. Perdiem™ granules should not be chewed. After Perdiem™ takes effect (usually after 24 hours, but possibly not before 36-48 hours), reduce the morning and evening doses to one rounded teaspoonful. Subsequent doses should be adjusted after adequate laxation is obtained.

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FOR PATIENTS HABITUATED TO STRONG PURGATIVES: Two rounded teaspoonfuls of Perdiem™ in the morning and evening may be required along with half the usual dose of the purgative being used. The purgative should be discontinued as soon as possible and the dosage of Perdiem™ granules reduced when and if bowel tone shows lessened laxative dependence.

FOR COLOSTOMY PATIENTS: To ensure formed stools, give one to two rounded teaspoonfuls of Perdiem™ in the evening with warm liquid.

DURING PREGNANCY: Give one to two rounded teaspoonfuls each evening.

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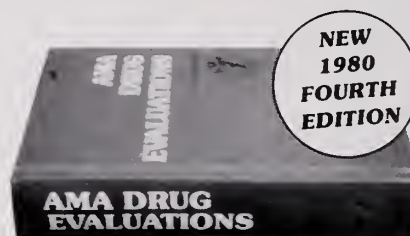
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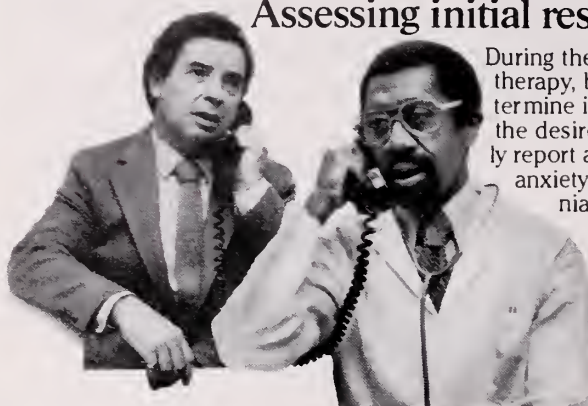
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Monitoring patient response to Valium® (diazepam/Roche)

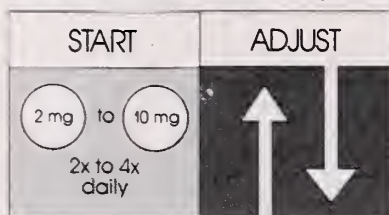
Assessing initial response to therapy



During the first follow-up visit after initiating therapy, both physician and patient should determine if Valium (diazepam/Roche) is having the desired effect. Most patients will promptly report a feeling of relaxation and relief of anxiety-linked symptoms such as insomnia, headaches, palpitations and hyperventilation. You will probably observe that the patient is calmer and more relaxed. If, however, patient response does not measure up to expectations, a reevaluation of the patient's profile with modification of the dosage regimen should be considered.



Making dosage adjustments



With any psychoactive medication it is good medical practice to initiate therapy at base dosage levels and titrate to the patient's needs. With Valium, experience has shown that 5 mg t.i.d. is usually sufficient although some patients with severe or persistent anxiety may require higher dosages initially. In geriatric or debilitated patients, the recommended dosage is 2 to 2½ mg once or twice daily.

When anxiety fluctuates, as is common with most patients, the dosage may be adjusted as needed during the course of therapy; three strengths in scored tablets give you unmatched flexibility and simplicity in individualizing dosage.

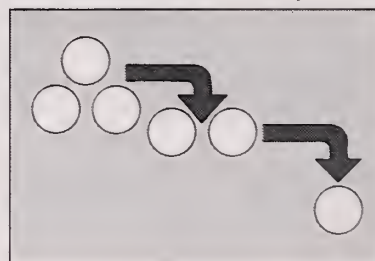
Evaluating progress toward therapeutic goals

SET GOALS						
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

At the beginning of therapy it is now common practice for both physician and patient to establish treatment goals and to estimate the amount of time needed to achieve them. Then the patient knows what to expect and when to expect it.

Some physicians find that compiling a checklist of presenting symptoms and complaints is useful for assessing the patient's response from visit to visit. In this way, progress toward attainment of the therapeutic goal is reviewed at regular intervals. As patients feel their symptoms abate and begin to develop insight into the sources of their anxiety and psychic tension, the checklist can be expected to dwindle.

Discontinuing pharmacologic intervention



When you decide to discontinue therapy, tapering dosage is good medical practice. Although rarely necessary after short-term treatment with Valium, gradual dosage reduction is advisable for patients who have been on extended therapy. This gradual discontinuance should preclude either recurrence of pretreatment symptoms or development of untoward side effects. Symptoms of withdrawal have almost always been associated with abrupt discontinuance of therapy at higher dosages taken continuously over long periods of time.

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Valium® (diazepam/Roche) ®

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders, psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; atetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated (See Precautions). **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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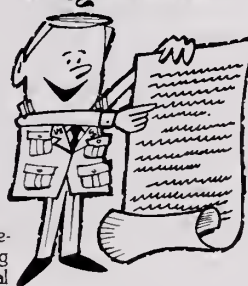
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An open letter to Physicians



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OR ?

Editor's Corner

This Obesity Business

I have never been able to understand what happens to a lot of people when they get older and begin to put on weight.

Let's get this straight! I don't refer to that great amorphous blob whose sole refuge from life's stern realities is at the table. The person I have trouble with is the one who doesn't really eat that much. In fact, he eats just the same as he did the 40 years before, but then he suddenly finds a broadening of the beam and an increase in A-P diameter which taxes the most accommodating polyesters.

Such is certainly not a matter of mere caloric intake. Nor would endless determinations of thyroid function explain it away. Neither is lack of exercise the culprit. What goes on?

For example, I remember two guys with whom I spent many a pleasant day floating James River shortly after WW II. One was Pete Lark. Pete looked like a starving American; scrawny, knobby, desiccated. He was about 60, looked about 90, weighed about a 100, ate constantly and was happily full of beer from the time we cast off until evening. The other was Parrot Gudjingo. Parrot paddled the boat, pulled the boat, swore at the boat, had chronic stomach trouble, ate circumspectly, couldn't drink anything stronger than Coca-Cola and weighed about 240.

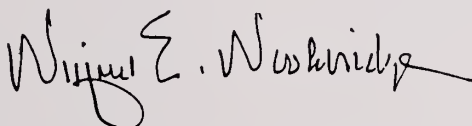
Many a morning I have built a gravel bar fire, fried 12 eggs and a pound of bacon. I would have two eggs. Big Parrot would have one. Poor little Pete would enjoy the remaining nine, several slices of toast, the rest of the bacon and a great mound of strawberry jam.

And what came of this? I can tell you that it would thoroughly upset any research project. Pete remained skinny and healthy. He ate like that all of his life, never had a major illness and peacefully died in his sleep at age 83.

Big Parrot? He remained big, ate little, developed hypertension and kicked off with a coronary at age 57.

Now, I realize we can't generalize on the basis of two such extreme cases, even though parallel. But, nevertheless, what went with all that food? Why did one look like a scarecrow? Why did the other look like a balloon?

In my perplexity, it isn't much help that you don't know, either.



Wilfred E. Wooldridge, M.D.

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penicillin V potassium

Description: V-Cillin K is the potassium salt of penicillin V. This chemically improved form combines acid stability with immediate solubility and rapid absorption.

Indications: For the treatment of mild to moderately severe pneumococcal respiratory tract infections and mild staphylococcal skin and soft-tissue infections that are sensitive to penicillin G. See the package literature for other indications.

Contraindication: Previous hypersensitivity to penicillin.

Warnings: Serious, occasionally fatal, anaphylactoid reactions have been reported. Some patients with penicillin hypersensitivity have had severe reactions to a cephalosporin; inquire about penicillin, cephalosporin, or other allergies

before treatment. If an allergic reaction occurs, discontinue the drug and treat with the usual agents (e.g., epinephrine or other pressor amines, antihistamines, or corticosteroids).

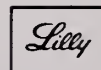
Precautions: Use with caution in individuals with histories of significant allergies and/or asthma. Do not rely on oral administration in patients with severe illness, nausea, vomiting, gastric dilatation, cardiospasm, or intestinal hypermotility. Occasional patients will not absorb therapeutic amounts given orally. In streptococcal infections, treat until the organism is eliminated (minimum of ten days). With prolonged use, nonsusceptible organisms, including fungi, may overgrow; treat superinfection appropriately.

Adverse Reactions: Hypersensitivity, including fatal anaphylaxis. Nausea, vomiting, epigastric distress, diarrhea, and black, hairy tongue. Skin eruptions, urticaria, reactions resembling serum sickness (including chills, edema, arthralgia, prostration), laryngeal edema, fever, and eosinophilia. Infrequent hemolytic anemia, leukopenia, thrombocytopenia, neuropathy, and nephropathy, usually with high doses of parenteral penicillin.

(1021751)

*Equivalent to penicillin V.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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DONALD SILVER, M.D., *Columbia*

Thoracic Outlet Syndrome

THE THORACIC OUTLET SYNDROME is a symptom complex of neural and/or vascular disorders. When vascular, it may occur either by compression of the subclavian artery or vein. In any event, the compression occurs in the region between the thoracic outlet and the insertion of the pectoralis minor onto the coracoid process. The symptoms may be neural, vascular or mixed. The thoracic outlet syndrome has become the preferred name for those syndromes resulting from compression of these structures to the upper extremities and is used in lieu of cervical rib syndrome, scalenus-anticus syndrome, costocoracoid-pectoralis minor syndrome, costoclavicular syndrome, and the first thoracic rib syndrome.

The thoracic outlet syndrome was responsible for approximately 0.6% of the admissions to the University of Missouri Medical Center in 1978. Seventy percent to 75% of the cases occur in the middle-aged woman, although it occurs in patients of all ages. The thoracic outlet syndrome is extremely rare in children but has been described in a 5-month-old infant with bilateral cervical ribs.¹

ANATOMY

An understanding of the functional anatomy of the thoracic outlet region is important for the evaluation and management of the thoracic outlet syndrome.

Brachial Plexus. Ninety percent to 95% of the symptoms are caused by brachial plexus compression. The anterior rami of the five spinal nerves (C-5, C-6, C-7, C-8 and T-1) usually form the brachial plexus. The fourth cervical and second thoracic nerves may contribute to the plexus. The

anterior rami combine to form three trunks which then divide and reunite into the posterior, lateral and medial cords. The various motor and sensory nerves arise from the trunks and cords. The three cords of the brachial plexus surround the axillary artery as it passes behind the insertion of the pectoralis minor onto the coracoid process. A functional distribution of the motor components of the brachial plexus includes the following: C-5 — shoulder girdle muscles, flexors of the elbow and supinators of hand; C-6 — aids C-5 and innervates the triceps, latissimus dorsi and coracobrachialis; C-7 — mainly supplies muscles of extension (elbow, wrist, thumb and metacarpophalangeal joints); and C-8, T-1 — flexion of wrist and fingers and innervation of intrinsic muscles of the hand.

Because the thoracic outlet syndrome occurs with sufficient frequency, all physicians should be aware of its etiology and manifestations. The diagnosis is established by the history and physical examination of the patient and is supported by radiographic and angiographic findings. Although the majority of patients respond to nonoperative management, 20% to 40% of patients require resection of their first rib for relief from symptoms. Surgery is associated with few complications and good results in at least 85% of those who undergo the operation.

Dr. Silver is Professor and Chairman, Department of Surgery, University of Missouri-Columbia Medical Center.

Subclavian-Axillary Arteries. The left subclavian artery originates from the arch of the aorta, whereas the right subclavian artery arises from the innominate artery. Both subclavian arteries emerge from the thorax behind the sternoclavicular joints and pass between the insertions of the scalenus medius and anticus on the first rib. The arteries then pass over the first rib behind the clavicle and become the axillary arteries. The axillary arteries pass posterior to the tendon of the pectoralis minor at which point they become the brachial arteries.

Subclavian-Axillary Vein. The axillary vein begins at the lower border of the teres major muscle and passes behind the costocoracoid ligament and pectoralis minor tendon. At the outer border of the first rib, the axillary vein becomes the subclavian vein, which passes over the rib, anterior to the scalenus anticus muscle, to join the jugular vein at the base of the neck before entering the thorax as the innominate vein.

The usual sites of compression of the nerves and vessels from medial to lateral are (1) the interscalene triangle (arteries and nerves); (2) the area between the scalenus anticus muscle and the clavicle (veins); (3) the area between the first rib and clavicle (nerves, arteries and veins); (4) at the costocoracoid fascia (nerves, arteries and veins); and (5) by the pectoralis minor tendon (nerves, arteries, and veins) during hyperabduction of the arm.

Compression of the neurovascular structures in one or more of the spaces of the thoracic outlet syndrome usually occurs with deterioration of posture and excess weight gain. However, compression may be related to the presence of bony or muscular anomalies, trauma, tumors, etc. Cervical ribs occur in approximately 1% of the population and are bilateral in 75% to 80% of these patients. Less than 10% of cervical ribs produce symptoms. However, cervical ribs are not infrequently associated with the thoracic outlet syndrome. Long transverse processes of C-7 may function as cervical ribs and also cause neurovascular compression. The first rib may have an anomalous attachment to the sternum and act as a cervical rib. Anatomic variations of the scalene muscles are a known cause of the thoracic outlet symptoms. Trauma appears to be assuming an increasingly important etiologic role with up to 34% of the cases of thoracic outlet syndrome apparently precipitated by trauma to the clavicle, shoulder, first rib, or cervical spine.^{2, 3} However,

most patients with thoracic outlet syndrome have symptoms with postural deterioration during which there is a downward displacement of the upper extremity with displacement of the axillary inlet below the level of the first rib, which stretches both vessels and nerves.^{4, 5}

Degenerative changes such as cervicothoracic scoliosis,⁶ arthritis of the first costovertebral joint⁷ and synostosis of the first and second ribs may cause neurovascular compression.

CLINICAL MANIFESTATIONS

The signs and symptoms of the thoracic outlet syndrome vary greatly depending on the vessels and nerves compressed and the site of compression. The clinical manifestations rarely indicate the site of obstruction. Neurologic symptoms which are produced by compression of the brachial plexus consist of pain, paresthesias and numbness, usually in the fingers and hands. The distribution is frequently in an ulnar pattern but may occur anywhere in the upper extremity or shoulder girdle. Late neurologic manifestations include sensory deficits, weakness and atrophy. The differential diagnosis of the neurologic symptoms includes intervertebral cervical disk, cord tumors, carpal tunnel syndromes, spondylitis and spondylolisthesis.

The arterial symptoms are caused by arterial insufficiency and consist of intermittent or constant paresthesias or coldness of the hand and fingers or both. Other symptoms include claudication, weakness and pain in the forearm or hand. The symptoms are frequently accentuated by exercise and by exposure to cold. A bruit is frequently heard in the supraclavicular area when the subclavian artery is compressed by one of the diagnostic maneuvers. Ulceration and gangrene may occur with advanced ischemia. The differential diagnosis of arterial insufficiency includes arteriosclerosis, arterial embolization, Raynaud's disease, collagen disorders and reflex vasomotor dystrophy.

The venous symptoms are caused by obstruction of the subclavian-axillary veins and consist of an aching, tired, painful limb with distal edema, distended veins and cyanosis. The differential diagnosis of venous insufficiency includes traumatic or idiopathic thrombophlebitis, cardiac failure, mediastinal, supraclavicular or axillary tumors with venous compression, compression of veins by aneurysms and cellulitis or lymphangitis.

DIAGNOSIS

The diagnosis is usually established by history and physical examination. The history frequently includes (1) trauma, e.g., fractures of the clavicles, cervical vertebrae or ribs; (2) unusual exercise or occupation, e.g., professional tennis player, painter, carrier of heavy objects, etc.; (3) poor posture or excessive weight gain; (4) tumors; (5) or unusual positions for sleeping or resting. The history also usually indicates whether or not the symptoms occurring in the upper extremity are part of a generalized process such as occurs in patients with connective tissue or metabolic disorders, neuropathies, cord tumors and other conditions.

In addition to the thorough general physical examination, a careful neurological examination should be performed with attention directed to the areas innervated by the brachial plexus. *It must be remembered that the vast majority of the patients have symptoms of neural compression and not arterial or venous insufficiency and, therefore, the absence or reduction of arterial flow or venous obstruction does not rule out the thoracic outlet syndrome.*

There are three classical maneuvers that are utilized during the examination of patients with suspected thoracic outlet syndrome. The maneuvers include the following:

(a) Adson or scalene maneuver.^{8,9} During this maneuver, the patient is seated comfortably with his hands resting on his knees. While the physician palpates the radial pulse, the patient takes a deep breath, extends the neck and turns the chin toward the side being examined. Disappearance or reduction of the radial pulse constitutes a positive finding. The symptoms are caused by compression of the subclavian artery, by the first rib and scalene muscles.

(b) The costoclavicular compression maneuver is done with the patient seated comfortably with his hands resting on his legs.¹⁰ The radial pulse should be monitored and the patient asked to throw his shoulders back and downward into an exaggerated military position. Disappearance or reduction of the radial pulse constitutes a positive finding during which the subclavian artery and occasional vein and brachial plexus are compressed between the clavicle and first rib.

(c) The hyperabduction maneuver¹¹ is also done with the patient seated. Once again, the radial pulse is monitored throughout the procedure which consists of passively moving the arm into a

hyperabducted position. A reduction or cessation of the radial pulse and the appearance of an axillary bruit indicates arterial compression by the pectoralis minor tendon or compression between the tendon and the first rib.

The chest x-ray is important in the evaluation of the thoracic outlet syndrome. The x-rays give information concerning the absence or presence of fractures, exostoses, callus, arthritis, narrowing of the foramina, cervical or abnormal thoracic ribs, and tumors. Myelograms may demonstrate cervical discs or other causes of cervical cord compression. Arteriograms may demonstrate compression of the subclavian-axillary artery by cervical or abnormal first ribs, the scalene muscles or the clavicles. The arteriograms are obtained with the arm by the side, with it hyperabducted, and while the costoclavicular compression maneuver is being performed. The arteriogram may also demonstrate the presence of arteriosclerotic vascular disease, emboli, vasospastic disorders and other anomalies. A normal arteriogram, however, does not eliminate neural compression as a cause of the syndrome. An abnormal arteriogram confirms, but does not establish the diagnosis because vascular compression in the region of the thoracic outlet occurs in approximately 30% to 40% of "normal patients." Venograms will help differentiate between compression of the axillary-subclavian vein by the outlet structures, aneurysms, tumor and thrombosis of the vein.

Nerve conduction studies have been utilized in evaluation of the patient with the thoracic outlet syndromes since 1971.¹² It has been found that a "high correlation" exists between nerve conduction velocities and the clinical status of patients. However, the author has abandoned the use of nerve conduction velocity studies because he has found them to be of little benefit, not reproducible and too variable.

MANAGEMENT

Sixty percent to 80% of the patients will respond to nonoperative management consisting of improvement of posture, weight reduction and the avoidance of positions which produce symptoms. An exercise program is directed to strengthening the cervical and shoulder girdle muscles which have allowed the shoulder structures to sag. The conservative management is most often successful in patients who have mild symptoms of short duration and, especially, in the middle-aged female with "drooping shoulders" or

other forms of poor posture. Patients who do not improve after a two-month period of exercise, weight loss, etc. should be considered candidates for operative management.

Although a multitude of operations have been designed to "decompress" the thoracic outlet syndrome, it is felt by most^{3, 13-15} that removal of the entire first rib effectively decompresses the neurovascular structures. I feel that this is the preferred method of treatment for the thoracic outlet syndrome. The first rib may be removed through a posterior incision identical to that used for an upper thoracoplasty¹³ or may be removed through a transaxillary approach. I utilize the transaxillary approach for resection of the first rib and cervical ribs in all patients except those requiring vascular reconstruction, at which time I utilize the posterior approach in order to obtain a better exposure of the vessels.

Resection of the first thoracic rib, and cervical rib if present, effectively removes all except one of the potential sites of neurovascular compression. Compression of the neurovascular structures by the pectoralis minor tendon may still produce symptoms when positions of hyperabduction are maintained. Therefore, I almost always, through the same incision, dissect anteriorly and divide the pectoralis minor muscle at its attachment to the coracoid process.

Most patients are benefited by resection of their first and cervical ribs with at least 85% receiving complete permanent relief.^{16, 17} Division of the pectoralis minor tendon increases the good results. Recurrences of symptoms are low, occurring in approximately 1% after first rib resection.¹⁸ Complications of surgery are few with the average hospital stay postoperatively being two to eight days with the mean being 3.2 days.

Vascular reconstructive procedures may be indicated in addition to the decompression of the neurovascular structures. Mild poststenotic dilatation of the subclavian artery is usually of no clinical significance. However, true aneurysms of the artery should be excised and replaced with a graft. Similarly symptomatic thromboses of the subclavian artery should be treated by thromboendarterectomy or bypass with an autologous vein or graft.

CASE REPORTS

Case #1 A 38-year-old moderately obese woman noticed numbness, tingling and clumsiness in her right hand and fingers for approximately five years. Recently, the symptoms had

occurred daily and her hand felt as though it were constantly "asleep." Her symptoms were worse at night. Results of a neurological examination were normal. Radial pulses could not be obliterated by any of the usual maneuvers. However, the hyperabduction maneuver did reproduce some of her symptoms. A chest x-ray revealed a right cervical rib. She was started on a weight reduction and exercise program and her symptoms were ameliorated and ultimately disappeared.

Case #2 A 22-year-old woman complained of intermittent pain in the right supraclavicular fossa and occasional pain and tingling in the right hand and fingers. These symptoms had been present for two years. One week prior to admission, she had had severe pain, numbness and tingling in the right arm and hand. These symptoms were severe for 45 minutes and gradually subsided over a 24-hour period. Hyperabduction and costoclavicular maneuvers did not alter the right radial pulse. The Adson maneuver, however, did obliterate the right radial pulse. Chest x-ray revealed an anomalous first rib on the right.

Because of the presence of a pulsatile mass in the right supraclavicular fossa, an arteriogram was obtained and demonstrated a small fusiform aneurysm of the right subclavian artery. At operation a posterior approach was used to expose the anomalous first rib, subclavian vessels and brachial plexus. The first rib was removed in its entirety, and a subperiosteal portion of the lateral two-thirds of the second rib was removed, totally decompressing the subclavian artery and brachial plexus. The postoperative course was satisfactory, with the patient becoming asymptomatic. The bruit and aneurysmal dilatation have disappeared.

SUMMARY

The thoracic outlet syndrome is a symptom complex which occurs predominantly in middle-aged women. The symptoms are predominantly neural but may also be arterial or venous in origin or both.

Improvement of posture, weight reduction and strengthening of the shoulder girdle are the main forms of management for patients with this syndrome. Patients who do not obtain relief from this regimen and those who have severe neurovascular changes will most often benefit from surgical decompression of the structures in the region of the thoracic outlet.

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Coronary Angiography Reviewed

Part I. Indications and Advances in Diagnostic Accuracy

IN PART I of this review of coronary angiography, the focus is on the discussion of (1) the indications for coronary angiography and (2) recent technical advances in coronary angiography which have resulted in improved diagnostic accuracy. In Part II, the recent experience of coronary angiography at the University of Missouri-Columbia, frequently performed in patients with severe cardiac disorders, will be reviewed, with particular reference to the management of high risk patients.

The history of coronary angiography¹ began in 1953 when Seldinger² demonstrated that catheterization could be performed in the left and right sides of the heart using a percutaneous needle puncture technique. Selective dye injection into the coronary arteries began in the late 1950s, being pioneered by Sones at the Cleveland Clinic using an open arteriotomy approach on the right brachial artery. In the mid-1960s, the percutaneous needle approach was improved to the extent that coronary angiography could be performed through the femoral artery without the need for an arteriotomy by using preformed catheters. With rapid advances in cardiac surgical techniques, coronary angiography has progressively become more of a routine procedure.

INDICATIONS FOR CORONARY ANGIOGRAPHY

Indications for coronary angiography have been well reviewed recently.^{3, 4} Clearly, whether patients can be considered candidates for coronary angiography will be influenced by such important factors as general health status, physiological age and the presence of other coexisting disease, e.g., cancer, cerebrovascular disease, renal disease or diabetes. The major purposes of coronary angiography are to demonstrate (1) the presence or absence of coronary artery disease and, when present, (2) the extent and severity of coronary artery disease in conjunction with an *assessment of left ventricular function*.

Current indications for coronary angiography (Table 1) are as follows:

1. Ischemic Heart Disease (Clinically Apparent)

a. *Stable Angina*

Stable angina can be defined as angina occurring only with exercise or with emotion or after meals (and with short duration — <15 minutes). The major indication in stable angina continues to be the inadequate control of anginal symptoms by a full medical program (including nitrates and beta blockade) so that angina continues to compromise the quality of life acceptable to an individual patient.

A further indication is probably in those patients for whom the result of the treadmill exercise test is strongly positive in either the extent of ST segment depression or association with marked hypotensive response to exercise or both. It is this group of patients in whom the highest incidence of left main coronary artery stenosis and triple vessel coronary artery disease has been found.^{5, 6} Therefore, the authors recommend treadmill exercise testing in all patients with stable angina. Whether or not

TABLE 1
INDICATION FOR CORONARY ANGIOGRAPHY

-
- | |
|---|
| 1. Ischemic heart disease (clinically apparent) |
| a. Stable angina |
| b. Unstable angina |
| c. Post-myocardial infarction — asymptomatic |
| d. Post-myocardial infarction — symptomatic |
| 2. Asymptomatic patient |
| a. Strongly positive exercise test for ischemia |
| b. Special groups |
| 3. Sudden "cardiac death" — post-resuscitation |
| 4. Valvular and congenital heart disease |
| 5. Post-operative evaluation |
| 6. Chest pain of unknown etiology |
-

all patients with stable angina should undergo coronary angiography, even when good relief has been obtained with a medical program, remains highly debatable. There is strong evidence that the severity and extent of coronary artery disease and the degree of left ventricular dysfunction provide good predictors of long-term prognosis.⁷

We believe, like many others, that coronary artery bypass surgery does improve patient life expectancy compared to medical treatment in *certain subsets of coronary artery disease*, including the subsets of left main stenosis, triple vessel disease, left main equivalent, double vessel disease particularly left anterior descending/right coronary artery combination or impaired ventricular function. Therefore, in stable angina we recommend coronary angiography (1) in patients whose angina is not adequately controlled medically, (2) in the majority of younger, more active patients (even if they have responded to a medical program) so that the particular subset of coronary artery disease/left ventricular dysfunction into which the patient falls may be accurately defined (as long as the coronary angiogram is being performed in a laboratory with a *low complication rate*) and (3) in all patients with a strongly positive exercise test for ischemia.

b. Unstable Angina

Unstable angina can be defined as angina occurring at rest, at night or in prolonged (>15 minute) episodes or with increasing frequency or both. Because of the significant incidence of triple vessel coronary artery disease and left main coronary artery disease in unstable angina,⁸ the authors recommend that all patients with unstable angina should undergo coronary angiography during the same hospitalization.

Usually investigation is not performed on an emergency basis but following an initial short period of medical treatment in order to rule out acute myocardial infarction and to control anginal episodes. Patients who cannot be controlled medically in the acute stage (bedrest, full sedation, oxygen, propranolol and, possibly, heparin) should be considered candidates for coronary angiography combined with usage of the intra-aortic balloon device to

provide hemodynamic support and control of pain.^{9, 10}

- c. *Following myocardial infarction — asymptomatic patients.* The role of routine coronary angiography in patients who are entirely asymptomatic following *transmural myocardial infarction* remains debatable.⁴

The authors do recommend consideration of coronary angiography in the asymptomatic, more active, younger patient approximately three months following transmural infarction as long as these studies are being performed in a laboratory with a good safety record. Patients who have suffered *subendocardial (nontransmural)* infarction should undergo coronary angiography earlier after infarction in view of the significant incidence of recurrent angina (including unstable angina) and transmural infarction.^{11, 12}

- d. *Following myocardial infarction — symptomatic patients.* Patients who develop complications from myocardial infarction, such as left ventricular aneurysm, ventricular septal defect, severe mitral insufficiency, congestive cardiac failure, continuing angina or recurrent ventricular arrhythmias, should undergo coronary angiography and left ventriculography for assessment of any left ventricular dysfunction two to three months after infarction (earlier if the individual patient is unstable).

2. Asymptomatic

Coronary angiography in the asymptomatic patient can be considered in two major circumstances as follows:

- a. Strongly positive exercise test suggestive of triple vessel disease or left main stenosis.
- b. Abnormal resting electrocardiograms in certain groups of patients, e.g., airline pilots.

3. Sudden Cardiac Death

Patients who are resuscitated from sudden ventricular fibrillation are usually found to have severe coronary artery disease.¹³ The role of coronary angiography and saphenous vein grafting is yet to be defined, but patients should be considered for angiographic investigations.

4. Valvular and Congenital Heart Disease

In adult patients being assessed for potential cardiac surgical procedures, the presence or absence of coronary artery disease is important

even in the absence of chest pain as is the demonstration of any anomalous coronary artery distribution. Therefore, all such patients undergo concomitant coronary angiography at our institution.

5. Postoperative Evaluation

Patients who have undergone cardiac surgery, such as patients with continued "ischemic" chest pain following saphenous vein grafting, are at times candidates for restudy of their native coronary circulation together with assessment of vein graft patency.

6. Chest Pain of Unknown Causes (recurrent chest pain)

This usually involves patients whose quality of life is severely affected by chest pain.

RECENT ADVANCES IN DIAGNOSTIC TECHNIQUES

The past few years have witnessed significant improvements in the accuracy of coronary angiography. The classical method in coronary angiography utilized cineangiography with the x-ray beam perpendicular to the long axis of the patient. Multiple oblique antero-posterior and lateral views are obtained, but the major problem with these views has been the considerable overlap of vessels and the inability to visualize the coronary arteries in full profile (including the left main coronary artery).

In recent years, cranial and caudal projections have been introduced in which the x-ray beam is angulated towards either the head or feet of the patient.¹⁴ This has greatly improved the accuracy of coronary angiography particularly in the assessment of possible stenoses in the left main, the proximal left anterior descending, proximal circumflex and distal right coronary arteries.¹⁵

The state of the art now is that it is potentially hazardous to label a patient with chest pain as having normal coronary arteries without performing an angulation study. For example, it is possible to (1) miss a localized, proximal left anterior descending lesion or (2) underestimate left main stenosis by the standard views without angulation.

At the University of Missouri-Columbia Medical Center, a General Electric Fluorocon System with LAD cranial-caudal angulation device is utilized. Angulation injections in both the cranial and caudal views are used routinely in all patients. Studies comparing angulation with standard views have demonstrated the finding of new lesions in 20% of patients and improvement of diagnostic ability in an additional 34% undergoing

This is the first segment of a two-part review of coronary angiography that reflects the major advances in the practice of cardiology and cardiovascular surgery at the University of Missouri-Columbia Medical Center.

The indications for coronary angiography and recent technical advances that have resulted in improved diagnostic accuracy are discussed in Part I.

Part II will be published in a future issue. It is a review of the recent experience with coronary angiography frequently performed in patients with severe cardiac disorders at the Medical Center. Particular reference is made to the management of the high-risk patient.

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coronary angiography.¹⁶ In addition, with the use of angulation, fewer injections can be performed in the high risk patient which, we believe, results in a decreased complication rate in such patients.

ROLE OF SURGICAL INTERVENTION

We believe that coronary angiography should be performed at an institution that has an active cardiovascular-thoracic program following the guidelines of the Intersociety Commission for Heart Disease Resources.^{17, 18} A close working relationship between the cardiologists and the cardiovascular surgical team is vital, particularly when dealing with unstable patients. A number of patients have been catheterized and transferred immediately to the operating room, occasionally with the use of the intra-aortic balloon device. Anticipation of a potentially unstable situation is important so that the catheterization is linked to the availability of the operating room and cardiovascular surgical team.

SUMMARY

The indications for coronary angiography are continually expanding and this procedure has progressively become more routine. Nevertheless, although the risk of coronary angiography is relatively small, this invasive investigation still exposes the patient to the potential of a life-threatening complication. Therefore, it is optimally performed in institutions with an active cardiac surgical group and in a cardiac catheterization laboratory that has both "state-of-the-art" equipment and fully trained, experienced staff.

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Reduction in Pituitary Tumor Size by Treatment With Bromocriptine

Case Report

BROMOCRIPTINE enjoys an established role in the treatment of the galactorrhea-amenorrhea syndrome.^{1,2} There is evidence that in addition to decreasing prolactin secretion, the drug causes regression of some pituitary tumors.^{3,4} Improvement in visual fields has provided indirect evidence of tumor involution.⁵ CT scanning was recently utilized by McGregor *et al* to more directly illustrate this phenomenon.⁶ The following case serves as a second example of tumor regression induced by bromocriptine therapy and confirmed by computerized tomographic imaging of the pituitary.

CASE REPORT

A 72-year-old man consulted an ophthalmologist in July of 1977 because of defective vision. He was found to have a bitemporal hemianopsia and was referred to St. John's Hospital for further evaluation. Skull radiographs revealed enlargement and demineralization of the sella turcica. Computerized axial tomography confirmed the presence of a large pituitary tumor with suprasellar extension. Left frontal craniotomy was performed. A large pituitary tumor was removed. Suprasellar extension and considerable flattening of the

A 72-year-old man experienced recurrence of a prolactin secreting pituitary tumor after surgical excision. After treatment with bromocriptine, diminution of tumor size was demonstrated by computerized tomography. There also was a dramatic reduction of the serum prolactin level. Bromocriptine appears to be effective in reducing pituitary tumor bulk in addition to its previously demonstrated ability to control prolactin secretion in the amenorrhea-galactorrhea syndrome.

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left optic nerve were noted.

The serum thyroxine level decreased from a preoperative value of 5.0 mcg/100 ml to 4.0 mcg/100 ml postoperatively (normal 5.5-11.5). Similarly, the postoperative 8 AM cortisol was 4.1 mcg/100 ml compared to a preoperative level of 12.5. The patient received thyroxine and prednisone following his discharge from the hospital.

Five months later, hypertension was noted and a local physician began therapy with methyldopa and chlorothiazide. On April 9, he was readmitted to St. John's Hospital for evaluation of persistent hypertension, headaches and intermittent visual blurring. The serum thyroxine level was 4.9 mcg/100 ml and the thyroid-stimulating hormone level was low normal at 1.5. Prolactin concentration was reported as greater than 500 ng/ml. A repeat CT scan showed regrowth of the pituitary tumor to its approximate preoperative size (Figs. 1 & 2). The patient refused radiotherapy for logistic reasons. After obtaining informed consent, bromocriptine was administered in a dosage of 2.5 mg twice a day. Nausea and orthostatic dizziness appeared and then diminished during the following week. The patient was discharged on a regimen of the above dose of bromocriptine as well as an increased dosage of levothyroxine. Methyldopa was discontinued and hydralazine was substituted for blood pressure control.

Six weeks later, nausea and dizziness had disappeared and he was having no further headaches. He still had some visual difficulty and was unable to satisfactorily read a newspaper. He was normotensive and a repeat prolactin level was 68 ng/ml. The bromocriptine dosage was increased to 2.5 mg three times a day.

On July 6, three months after the initiation of bromocriptine, the patient was again seen. He remained normotensive. CT scan revealed marked diminution in tumor size (Figs. 1 & 2). Bromocriptine was continued and plans were made to repeat the prolactin level in three months.

DISCUSSION

The surgical cure rate for pituitary macroadenomas is 40% to 50%.³ When this patient's tumor recurred postoperatively, irradiation was discussed as the conventional mode of therapy. However, the patient's refusal prompted consid-

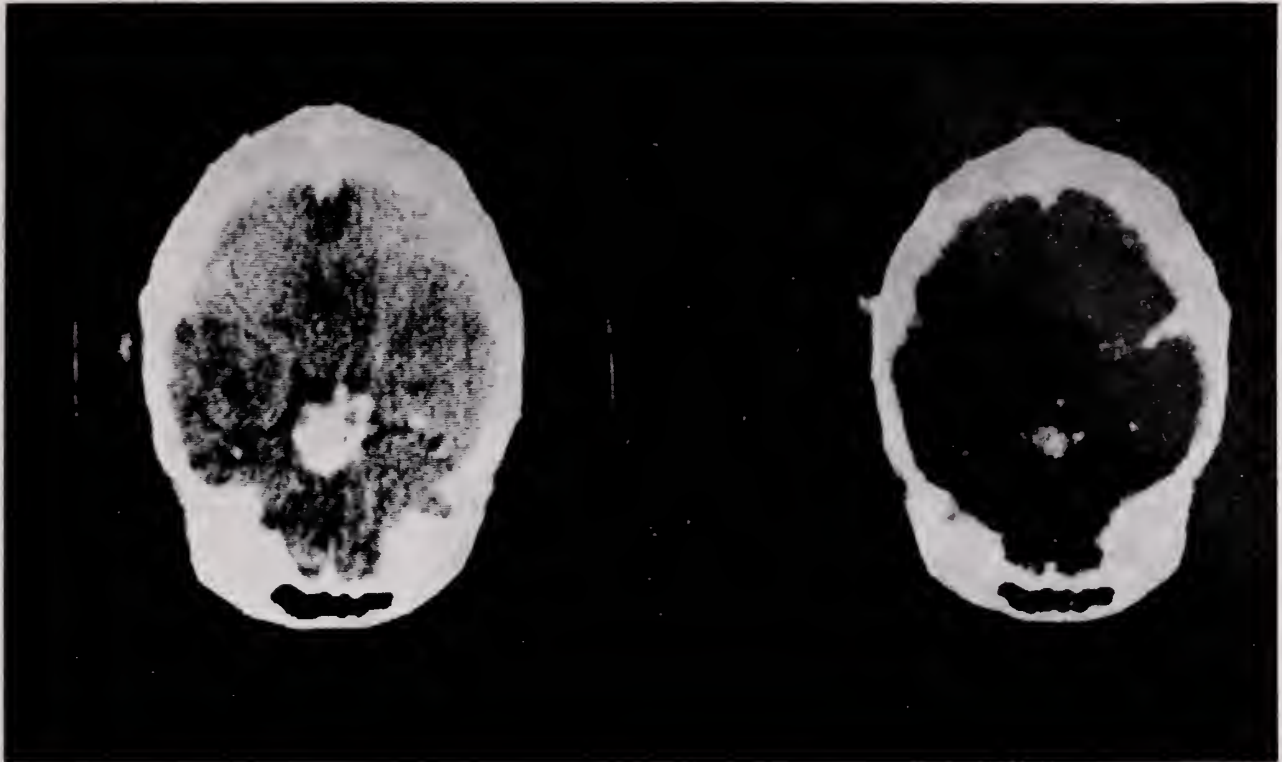


Fig. 1 Standard CT view shows reduction in tumor size. (*Left*) April 11, 1979. (*Right*) July 6, 1979.

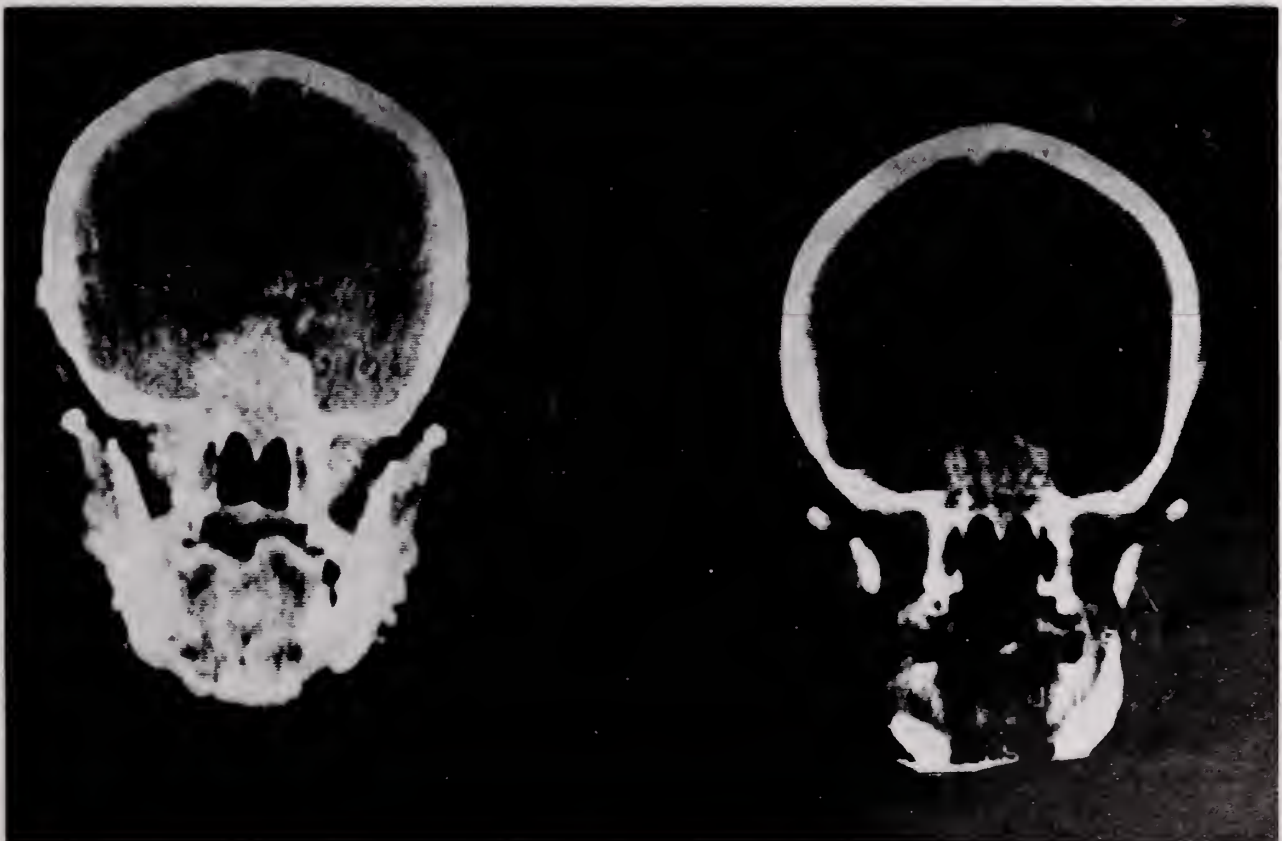


Fig. 2 Coronal view demonstrates improvement in ventricle impingement. (*Left*) April 11, 1979. (*Right*) July 6, 1979.

eration of bromocriptine therapy. The question of bromocriptine withdrawal after initial success, as in our patient, is unanswered. Recent data⁷ suggest prolonged suppression of prolactin levels after discontinuation of the drug.

It is interesting to speculate on the influence of methyldopa in this patient's tumor recurrence. Methyldopa is a dopa-decarboxylase inhibitor which decreases tissue concentrations of dopamine and can cause hyperprolactinemia.⁸ This may have been a factor in stimulating regrowth of the patient's prolactinoma.

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Thoracic Outlet Syndrome

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Coronary Angiography

(Continued from page 195)

The complication rate from coronary angiography is related to the above factors and also to the severity of coronary artery disease (or other co-existing severe problems such as critical aortic stenosis). Therefore, a formalized approach is necessary for management of these patients so that coronary angiography can be safely performed. These aspects will be discussed in Part II of this review.

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Vaginal Atresia

Neonatal and Adolescent Presentations

VAGINAL ATRESIA may be detected during the neonatal period or at menarche. In the neonate, the vagina fills with a watery mucus produced in response to withdrawal of estrogenic hormones. This often is noticed as a lower abdominal mass and is termed mucocolpos (Case #1). If a minimal amount of mucus is produced, the obstructed vagina may go undiagnosed until menstrual flow begins.

At menarche, the vagina fills with blood (hematocolpos) and the patient is found to have a lower abdominal mass and pain (Case #2). The most common form of vaginal atresia is an imperforate hymen and this diagnosis is obvious on examination. The following cases represent the spectrum of manifestations of higher vaginal atresia, including one with associated unilateral renal agenesis.

CASE REPORTS

Case #1 A one-day-old black infant was transferred to St. Louis Children's Hospital with a diagnosis of "abdominal mass." This infant weighed 4,030 gm and was delivered by cesarean section. She tolerated several feedings, but a lower abdominal mass was felt by several examiners. She had passed clear urine on several occasions.

Examination revealed a soft, 12 cm x 12 cm lower midline abdominal mass. Rectal examination showed this to be anterior to the rectum and relatively fixed. The external genitalia were normal and a catheter passed easily into the vaginal opening. A normal urethra could be identified.

An intravenous pyelogram (IVP) showed a large mass compressing the bladder and causing hydronephrosis and hydroureter on the left side (Fig. 1A). There was no visualization of a right kidney. A vaginogram showed a mass pushing into the vagina (Fig. 1B). All laboratory values, including urinalysis, were normal.

A laparotomy was done because of the obstructed single kidney. The small vaginal introitus precluded attempts at a perineal approach. A lower abdominal transverse incision was used. At the operation, we found an undilated bicornuate uterus (Fig. 2). There was a normal Fallopian tube and ovary on each side. The uterus sat on the massively dilated vagina. The bladder also was dilated and pushed anteriorly. The

The most common form of vaginal atresia is imperforate hymen, which usually is easily diagnosed by inspection. Higher atresias may be diagnosed in an infant if an abdominal mass is present or it may go undetected until menarche. An example of each is detailed in these case reports. The related problem of unilateral agenesis occurred in one patient.

The authors are from the Department of Surgery, Division of Pediatric Surgery, Washington University School of Medicine and St. Louis Children's Hospital.

dilated vagina was opened and approximately 500 cc of watery mucus was aspirated. We then were able to identify a transverse vaginal septum separating the upper and lower vagina. The 3 mm thick septum was excised. A single cervix entered the obstructed portion of the upper vagina. The vaginal area was not drained. Palpation confirmed the absence of the right kidney. The patient did well postoperatively and has had resolution of the hydroureter and hydronephrosis (Fig. 1C). The bladder functions normally.

Case #2 A 14-year-old white girl was referred to St. Louis Children's Hospital with a "pelvic mass." During the three previous months, she had had three episodes of abdominal pain lasting two to three days each. The patient discovered her lower abdominal mass. She had never had a menstrual period.

An examination revealed a 10 cm x 12 cm firm, lower midline mass. The external genitalia were normal, including a normally placed urethral opening and normal hymen. Palpation with a probe was possible to a depth of 2 cm above the hymen. An IVP revealed normal kidneys and anterior displacement of the bladder. Ultrasound showed the mass to be cystic.

At the operation, the hymen was retracted and a needle aspiration confirmed the presence of blood in the mass. The transverse vaginal septum was excised via the vaginal exposure. The mucosal edges were approximated with chromic catgut. This septum was approximately 1 cm thick.

Since the operation, the young lady has had five examinations with dilatation and inspection of the circumferential suture line while under anesthesia. She is having normal menstrual flow and there is now minimal evidence of narrowing at the site of excision.

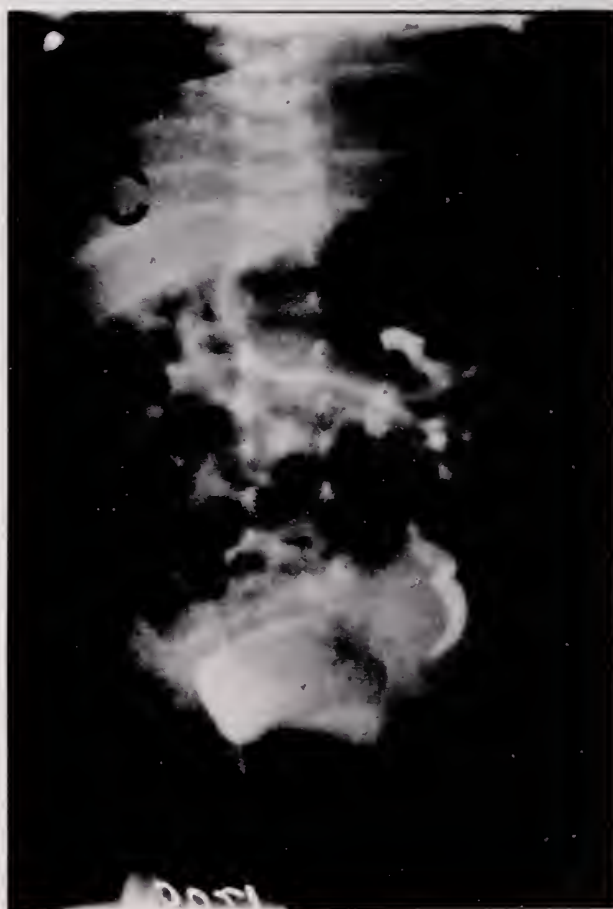


Fig. 1 (A) Lower abdominal mass causing hydronephrosis. Note absence of right kidney. (B) Vaginogram. Catheter is in bladder anterior to mass. (C) Intravenous pyelogram one week postoperatively. →

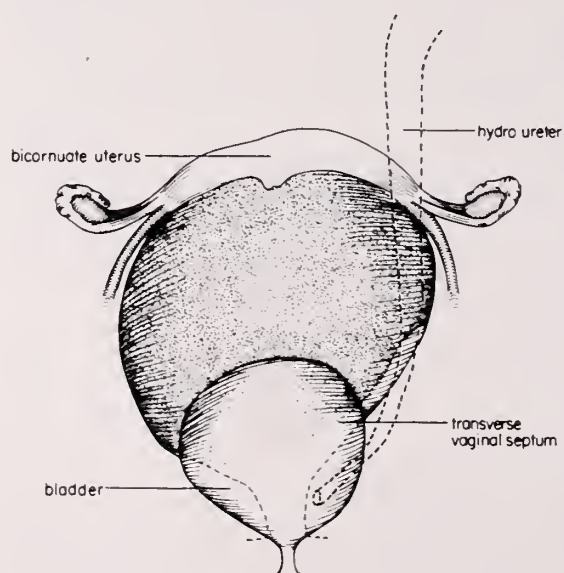


Fig. 2 Findings at operation.

DISCUSSION

Abdominal masses can usually be properly diagnosed by physical examination and simple radiological studies. In most cases of hydromucocolpos, examination of the vaginal introitus will reveal a bulging hymen caused by imperforate hymen. The urethral opening should be identifiable unless there is an associated urogenital sinus. If the vaginal introitus and urethra are normal in appearance, a more proximal vaginal atresia must be considered.

A lower abdominal mass in the infant or female adolescent is often related to an enlarged ovary (cyst, dermoid or solid tumor) or to hematocolpos or mucocolpos. In a boy, the distended bladder secondary to posterior urethral valves or prostatic rhabdomyosarcoma may be the mass. An abnormally enlarged or infected urachus may cause a lower abdominal mass. Pelvic tumors (such as neuroblastoma, pre-sacral teratoma) or pelvic or horseshoe kidneys can be localized by an IVP and physical exam.

In the adolescent, a history of intermittent pain in a premenarchal girl suggests obstruction of menstrual flow. The pain may be from the distension of the uterus and vagina, but it may also be due to retrograde spillage of blood into the peritoneal cavity via the Fallopian tubes. Even neonates may spill mucous retrograde and cause a fibrinous peritonitis.¹

The uterus and upper vagina develop from the caudal portion of the Mullerian ducts as they fuse during the third month of gestation. The lower vagina may originate from the sinovaginal bulbs which recanalize a vaginal opening in the perineum between the urethra and rectum.² If

the Mullerian ducts fail to form properly, uterine atresia or aplasia as well as upper vaginal atresias can occur. Incomplete recanalization may explain the transverse vaginal septum found in our cases.

The close association between the developing mesonephros and Mullerian ducts (paramesonephric duct) explains the concurrence of vaginal anomalies and renal anomalies. Unilateral absence of the kidney is found in 10% to 15% of patients with vaginal or uterine anomalies.³ Conversely, in patients with unilateral renal agenesis, uterine or vaginal anomalies are found in more than 50% of cases.

Critical to the understanding of these anomalies is the avoidance of resection of a "mass" in the pelvis of a neonate when relief of the obstruction is sufficient. Inadvertent panhysterectomy and vaginectomy have been reported in infants with this condition.⁴ If a small opening is present in the septum, there will be no mass, but pregnancy can occur and the incomplete septum will complicate vaginal delivery.⁵

Some cases of vaginal atresia discovered in adolescents will be amenable to surgical excision from the vaginal approach, but high atresias will need an abdomino-vaginal approach for safe excision. In the neonate, proper visualization of the septum will usually require resection from the abdominal approach.

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In Memoriam

Robert W. Crossman, M.D., 1509 Holly Dr., Webster Groves 63119; a graduate of Washington University, 1932; member of St. Louis Metropolitan Medical Society; age 74; died Feb. 13, 1980.

Jonathan N. Goodman M.D., 245 Union Blvd., St. Louis 63103; a graduate of Washington University, 1927; member of St. Louis Metropolitan Medical Society; age 81; died Feb. 16, 1980.

V. Rogers Deakin, M.D., 4530 W. Pine, Apt. 201, St. Louis 63108; a graduate of Washington University, 1922; member of St. Louis Metropolitan Medical Society; age 82; died Feb. 17, 1980.

Clarence W. McKaskle, Jr., 400 Carleton Ave., Caruthersville 63830; a graduate of the University of Tennessee, 1951; member of Pemiscot County Medical Society; age 56; died Feb. 17, 1980.

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President's Message

The 12 months of my presidency of Missouri State Medical Association have passed very quickly. I have had the pleasure of traveling to medical society meetings in Joplin, Cape Girardeau, Chillicothe, St. Louis, Springfield and Branson. Because of an unavoidable conflict, I was unable to attend the Chariton-Macon-Monroe-Randolph Society meeting in February.

The past year has been characterized by a new sense of unity in our association. We have expanded the House of Delegates to represent more closely the numbers of physicians who are practicing in each of the component medical societies. We also have admitted to membership medical students who can be expected to contribute to our vitality in the future. Our legislative program has had good success in a number of different bills that are important to physicians. We have a thriving professional liability insurance company which is going through the process of registration for a public stock offering. Our Missouri Health Data Corporation continues to furnish data to federal and state third-party payers, at the same time protecting the confidentiality of the physicians and patients involved with the data.

All of the members of the various commissions and committees who have participated so faithfully in the affairs of the association deserve warm congratulations from all of us for their jobs well done. I have the pleasure of passing the baton to Dr. Richard V. Bradley of St. Louis. Dick has served as president-elect of the association during the past year and has represented us on the State Cost Effectiveness Committee. I welcome Dick to the office of president of the MSMA and wish him and the association every success in the future.



Andrew McCause, M.D.



MSMA Auxiliary

*A man is relieved and happy
when he has put his heart
into his work and done
his best. — Ralph Waldo Emerson*

One year ago, it became my privilege and responsibility as president to carry on the duties of the Missouri State Medical Society Auxiliary, which were done so well by my predecessors.

Now in preparing the files for my successor and reading the exciting reports I am receiving from my chairman and county presidents, I think of the wonderful work that our members are doing. We have a great organization, and I am so pleased to have been chosen to represent this Auxiliary.



Mrs. Rudy Ruhling
President

As one nears the end of a term in office, it is not the end. It is only the beginning of a new and vital year. It will be with great pleasure that I pass this mantle of leadership and responsibility to Mrs. Donald A. Fakhoury (Ina May), who will be the new president of the Missouri State Medical Association Auxiliary for 1980-1981.

With that thought in mind, I ask that, on both the county and state levels, we all continue our efforts toward membership, quality programs and good fellowship in our organization.

Thank you for honoring our Auxiliary with all that you do for us, and thank you for allowing me to represent your Association through its Auxiliary with honor. I am very grateful for the opportunity I have had to work with the MSMA staff, who were so cooperative and patient at all times.

I would like to thank the Council for its generosity, thoughtfulness and sincere interest in the Auxiliary. My year has been a responsibility filled with pleasure. This has been possible with the help of the Council, the MSMA staff and my faithful Auxiliary members.

EDITORIAL

FTC BROADENS ITS FRONT IN ATTACK ON MEDICINE

To what degree will the Federal Trade Commission (FTC) be able to encroach on our medical professionalism and the public-spirited responsibilities that go with it?

This question loomed when the FTC challenged the AMA's ethical ban on physician solicitation of patients. It also is looming again on the issue of the FTC and medical-school accreditation, an issue that had been in abeyance during a two-year grace period.

The advisory committee to the U.S. Commissioner of Education is scheduled to open a hearing on April 21 on the FTC's petition to dislodge the Liaison Committee on Medical Education (LCME) as accrediting body for medical schools.

As co-sponsor of the LCME — along with the Association of American Medical Colleges (AAMC) — the AMA is again the prime target of the FTC action, just as in the ongoing case on physician advertising and solicitation.

FTC lawyers exultantly smell a rat in the AMA's accreditation role. They contend the Association wants to limit the number of schools and graduates for the

same basic reason it allegedly wants to limit the scope of advertising: to stifle intraprofessional competition.

The contention is out of touch with the facts, of course. Instead of being held down, the number of approved medical schools has surged (with full AMA support) from 85 in 1960 to 126 today. Enrollment in that time has more than doubled.

Well, the FTC counters, the LCME just might sometime restrict the school growth.

Another federal agency — HEW — foresees no restriction. In a recent report, HEW stated: "Our nation's schools are currently geared to produce doctors at a rate that should put the total number in balance with our national needs by the 1980s. By the 1990s, we should have a supply greater than we will need."

In its move on accreditation, the FTC is joined by such "public interest" groups as Common Cause and Sidney Wolfe's Public Citizen Health Research Group. But we feel it's clearly in the public interest that the AMA continues waging arduous if costly battles to keep medical professionalism intact.

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in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

EXECUTIVE EXCHANGE PROGRAM, an informal consulting service, will be offered to members of the American Association of Medical Society Executives (AAMSE). The aim of the program is to provide executives with information, new ideas and solutions based on the success of other AAMSE executives in many subject areas. A reference file of members with special expertise will be maintained at AAMSE Headquarters in Chicago. Communication by members with the expert can take place by telephone, mail or on-site visit. For further information contact AAMSE Headquarters, 535 N. Dearborn St., Chicago, 60610 (312) 751-6733.

QUALIFICATIONS OF JAIL HEALTH facilities will be reviewed by the newly formed AMA Consultant Advisory Group on Accreditation. The five-member group will weigh assessment by AMA Jail Health Project staff against AMA standards for jail health care, which have been used to accredit health facilities in 56 jails nationwide. Development of the standards was funded by Law Enforcement Assistance Administration grants.

PHYSICIANS CAN RECEIVE A \$50 discount or a free copy of *AMA Drug Evaluations* if they register before March 15 for any of the three upcoming AMA seminars on the overall purpose and responsibilities of a medical staff. A special segment on medical malpractice will be included. The seminars, "Medical Staff: Friend or Foe," will be held on April 24-25 in Chicago, May 9-10 in Portland, Ore. and Nov. 6-8 in New Orleans. Registration fee before discount is \$250 for AMA members and \$350 for nonmembers. For more information contact the Department of Hospitals and Health Facilities, AMA Headquarters.

"WHILE PHYSICIANS SHOULD BE conscious of costs and should not provide or prescribe unnecessary services or unnecessary ancillary facilities, concern for the patient and the quality of care the patient receives comes first," the AMA Judicial Council states in the newly published

1979 edition of *Judicial Council Opinions and Reports*. The booklet also contains new ethical standards on in vitro fertilization, euthanasia and patient confidentiality. The AMA has formulated and reviewed ethical guidelines since its founding in 1847. Cost is \$2 each for 1-10 copies; \$1.80 each for 11-49; \$1.60 each for 50 or more; and \$2.50 each for foreign orders. To order write OP-437, AMA Order Dept., P.O. Box 821, Monroe, Wis. 53566.

THE TOTAL AMA MEMBERSHIP figure for 1979 was 223,000, an increase of 12,700 over the 1978 figure. In 1979, the AMA had 192,100 dues-paying members and 30,900 dues-exempt members. Of the dues-paying total, 151,600 were regular members, 20,300 were interns and residents and 20,200 were students. All membership goals were exceeded last year, with regular members numbering 3,900 more than in 1978 and resident and student membership increasing 8,800 over 1978.

THE NUMBER OF COMPLAINTS against physicians under investigation increased by nearly 85% in 1978 over the total a year earlier, a 1978 AMA survey shows. The increase in investigations — from 3,662 in 1977 to 6,801 in 1978 — can be attributed in part to the growing legal immunity offered to those who report offenses. The increase in actual disciplinary actions against physicians — from 685 in 1977 to 1,476 in 1978 — continues an upward trend first noted by the AMA in 1971 and can be partially attributed to the addition of more and varied forms of discipline.

AMA CONCERN FOR IMPAIRED PHYSICIANS has led to three conferences, model legislation for treatment and rehabilitation, and a quarterly newsletter on programs available. A symposium on the impaired physician was included as part of the recent AMA Winter Scientific Meeting in San Antonio. For information on impaired physician programs, write to the Dept. of Mental Health, AMA Headquarters.



NEWS

From the Medical Schools

UNIVERSITY OF MISSOURI-COLUMBIA

Dr. E. Lee Forker has joined the faculty as professor of medicine and chief of the Division of Gastroenterology and Liver Disease. He is from the University of Iowa Hospital and Clinics where he has been chief of the liver service.

Dr. Forker succeeds Dr. Dan Winship who remains on the faculty as professor of medicine and now serves as chief of medical services at the VA Hospital.

A graduate of the University of Pittsburgh School of Medicine in 1957, Dr. Forker interned at Presbyterian Hospital in Denver and took his residency training in medicine in Iowa. He was a postdoctoral fellow of the Iowa Heart Association, taking special training in physiology and biophysics.

Widely published as an investigator of liver physiology, Dr. Forker is associate editor (for liver physiology) of the *American Journal of Physiology* and serves on the editorial board for the society for Experimental Biology and Medicine. He is on the research committees of the American Gastroenterology Association and a councilor of the American Association for the Study of Liver Disease.

The American Parkinson's Disease Association (APDA) has opened an information center to provide information to physicians, patients, families and others regarding the disease and its treatment. It is one of 15 such centers in the United States.

Patients will be able to request treatment in the neurology outpatient clinic or they will be referred to physicians in private practice in Columbia or in their home communities on request. A list of neurologists throughout the Midwest who treat patients with Parkinson's disease is being compiled.

Drs. John A. Byer and J. Donald Easton, neurologists and co-directors of the APDA Information Center, said they will keep an up-to-date library of medical literature regarding the disease to provide the most recent data on new methods of treatment as they are developed.

Dr. Akbar Bonaktar-pour, professor of radiology and orthopedics at Temple University in

Philadelphia, was the ninth orator for the annual Orthopedic/Radiologic/Pathology Conference in March.

The program included a presentation of bone tumor cases to a panel of experts who discussed diagnosis and treatment. Panelists were Drs. Gwilym Lodwick, R. Abadir, W. C. Allen, Kenneth Sandock and Curtis Bourgeois. Dr. Corinne Farrell was the moderator.

Gerald T. Perkoff, M.D., UMC Curators Professor and associate chairman of the Department of Family and Community Medicine, is the author of a new book published by Health Administration Press, University of Michigan. "Changing Health Care: Perspectives From a New Medical Care Setting" describes the formation of the Medical Care Group (MCG) of Washington University, a teaching and research prepaid practice group, while Dr. Perkoff was professor of medicine at that medical school.

ST. LOUIS UNIVERSITY

Thomas F. Frawley, M.D., clinical professor and chairman emeritus, Department of Internal Medicine, will become the president-elect of the American College of Physicians on April 24 at the group's annual meeting in New Orleans.

Dr. Frawley is the first president-elect of the American College of Physicians from Missouri. He will be installed as president in April, 1981 in Kansas City.

He was professor and chairman of the Department of Internal Medicine at the School of Medicine from 1963 to 1973. A Rochester, N. Y. native, he stayed with the university as professor of internal medicine and was named clinical professor of internal medicine in 1974 and chairman emeritus in 1977.



Dr. Frawley

William F. Melick, M.D., clinical professor of urology, will become the president of the American Urological Association at the group's meeting in San Francisco in May. The medical alumni of the university will honor Dr. and Mrs. Melick with a reception at the Fairmont Hotel in San Francisco on May 20, during the association's meeting.

Dr. Melick was director of the urology residency program at the University's medical center for 20 years.

He was one of the first physicians to relate cases of bladder tumors in employees to exposure to chemicals while working. Now, 20 years later, he still observes some of these workers.

John McGiff, M.D., professor of pharmacology at New York Medical College, delivered the William N. Creasy Memorial Lecture at St. Louis University Medical Center on March 21. The subject of the lecture was "Prostaglandins and the Regulation of the Circulation."

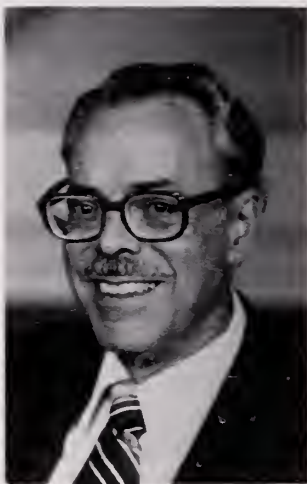
Dr. McGiff, who served as director of the Cardiovascular Section at the University from 1966 to 1971, made ward rounds of the University's clinical services and met with medical students, housestaff and faculty.

The Creasy visiting professorships of clinical pharmacology are offered each spring for the following academic year. The program pays tribute to the late William N. Creasy, co-founder of the Burroughs Wellcome fund.

The St. Louis University Medical Center's cancer colloquia continued with two speakers in March. Margaret L. Kripke, Ph.D., associate director of the Cancer Biology Program and director of the immunobiology of Physical and Chemical Carcinogenesis Section, Frederick Research Center, Md., spoke on "Immunological Aspects of Ultraviolet Carcinogenesis."

David C. Dahlin, M.D., professor of surgical pathology at the Mayo Clinic, Rochester, Minn., spoke on malignant tumors of the bone.

Stephen Ayers, M.D., professor and chairman, Department of Internal Medicine, is the new governor of Missouri for the American College of Cardiology.



Dr. Melick

Dr. Ayers is also president of the Society for Critical Care and is a member of the Surgeon's General Committee on Cardiovascular Aspects of Smoking and Health.

UNIVERSITY OF MISSOURI-KANSAS CITY

*In a news conference on March 7, Chancellor George A. Russell announced continued and full accreditation for the University of Missouri-Kansas City School of Medicine (UMKC) for a five-year period. On February 8, the Liaison Committee on Medical Education, the accrediting body of the American Medical Association and the Association of American Medical Colleges, approved the recommendation of the survey team that visited the School on Oct. 22-26, 1979.

The accreditation is contingent upon acceptance by the LCME of a satisfactory progress report in December, 1982. The Liaison Committee expects to re-survey the program during the 1984-1985 academic year and does not expect a self-study at that time.

The full accreditation by the LCME also allows the school to increase its entering class size to 100 students from the previous limit of 90. The LCME report also commented favorably on the school's medical student-oriented organization with its primary focus on the medical student.

Thomas A. Nicholas, M.D., has assumed the position of chairman of the Department of Community Medicine and Family Practice at Truman Medical Center (TMC), the School of Medicine's primary adult teaching hospital, and has received an appointment as professor of medicine with the University.

The Liaison Committee on Graduate Medical Education recently granted provisional accreditation to the three-year family practice residency at TMC as a part of the University of Missouri-Kansas City School of Medicine Affiliated Hospitals program.

Dr. Nicholas formerly was director, Division of Education, American Academy of Family Physicians in Kansas City. He has been a member since 1959. Prior to 1978, he served as chairman of the Department of Family Practice at Texas Tech University School of Medicine in Lubbock.

Born in Iowa City, Dr. Nicholas traveled to Montana and Wyoming for his undergraduate training. He received his M.D. degree from the University of Colorado in 1950. His postdoctoral training includes an internship at Fitzsimons Hospital in Denver, an obstetrics externship at

Presbyterian Hospital in Denver, a three-year stint in anesthesia postgraduate courses at the University of Utah, a six-year general practice review at the University of Colorado and a term in Program Health Systems Management at Harvard University School of Business.

Charles B. Wilkinson, M.D., associate dean for Development at the School of Medicine and executive director of the Greater Kansas City Mental Health Foundation, is one of five new members appointed to the Graduate Medical Education National Advisory Committee (GMENAC). GMENAC is studying the country's need for medical specialists in 1990 and is scheduled to issue a report to the Secretary of Health, Education and Welfare in April.

The Liaison Committee on Graduate Medical Education (LCGME) has granted full accreditation to the three-year internal medicine residency training program of the UMKC School of Medicine Affiliated Hospitals (effective February 29). The affiliated hospitals are Truman Medical Center, Menorah, Research and Trinity Lutheran.

WASHINGTON UNIVERSITY

Joshua Sanes, M.D., assistant professor of physiology and biophysics, is one of 78 young scientists selected this year to receive two-year basic research fellowships from the Alfred P. Sloan Foundation.

Dr. Sanes specializes in neurobiology and will use his Sloan Fellowship funding to support his research into the influences of the molecular structure of the basal lamina on the pattern of nerve impulses transmitted to muscles. The basal lamina is a thin sheath of connective tissue between the nerve and the muscle.

The Sloan Fellowships for Basic Research is a 25-year-old program established to encourage scientists under the age of 32 who are faculty members of colleges and universities in the U.S. and Canada and who are working in chemistry, physics, mathematics or neuroscience. Among the previous Sloan Fellows are six Nobel laureates, two recipients of the National Science Boards' Alan T. Waterman Award, and two winners of the Fields Medal, the highest honor in mathematics.



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MSMA Members Receive Physician's Recognition Award

Fifty MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period Dec. 3, 1979 and Jan. 11, 1980.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in MISSOURI MEDICINE as they are received from the AMA.

James B. Allison, Springfield
 Rolfe A. Becker, Kansas City
 H. Waldo Bird, St. Louis
 Robert L. Bolton, St. Louis
 Kenneth E. Callen, Columbia
 Samuel A. Canaan, St. Louis
 Raymond A. Christy, Springfield
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 Harold R. Henstorf, Columbia
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George E. Murphy, St. Louis
 Gerald Newport, Florissant
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 Patricia L. O'Neal, St. Louis
 David L. Ohlms, St. Louis
 Leopoldo P. Pardo, St. Louis
 Vincent P. Perna, Creve Coeur
 Leonard N. Piccione, Bridgeton
 Stephen L. Post, St. Louis
 Joseph H. Printz, Kansas City
 Dasara V. Ratnam, Kansas City
 Thomas F. Richardson, St. Louis
 Bernardo R. Rodrigo, Creve Coeur
 Joseph A. Roy, Bridgeton
 Kenneth F. Scott, Clinton
 Gerald D. Seiden, Kansas City
 Frederic M. Simowitz, St. Louis
 James B. Smith, Clayton
 Jose R. Somoza, N. Kansas City
 William I. Stryker, Clayton
 Pedro L. Suarez-Solar, St. Charles
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 Cesar A. Valtierra, St. Louis
 Garry M. Vickar, Florissant
 Harold D. Wolff, St. Louis

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673
Contact: Office of CME

- Apr. 25-26 Eye Alumni Meeting
May 3-11 Second Annual Current Concepts in
Musculoskeletal Radiology and Or-
thopedics Meeting
May 9-10 Orthopedic Radiology
May 15-16 Neuromuscular Diseases
Nov. 14-16 Seventh Annual Symposium: Anes-
thesia and the Geriatric Patient

Ellis Fischel State Cancer Hospital
and Cancer Research Center
115 Business Loop 70 West, Columbia 65201
(314) 449-2711
Contact: Eugene Bricker, M.D.

- May 3 Carcinoma of the Breast

**University of Missouri-Kansas City School of Medi-
cine — Kansas City Southwest Clinical Society**
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

- May 2-3 The Long Weekend: Office Clinical
Care
(UMKC School of Medicine)
May 15-16 Surgical Problems, Old and New
(Alameda Plaza Hotel)
June 5-6 Symposium on Physical Fitness
(Crown Center Hotel)
Aug. 15-17 The Long Weekend: Endocrinology
(Tan-Tar-A, Osage Beach)
Oct. 30-
Nov. 1 Annual Fall Clinical Conference —
K.C. Southwest Clinical Society
(Alameda Plaza Hotel)
Dec. 4-6 The Heart 1980
(Alameda Plaza Hotel)

St. Luke's Hospital of Kansas City
Wornall Rd. at 44th, Kansas City 64111
(816) 932-2000
Contact: Gail Williams

- June 9-10 Neurology and Aphasia Seminar

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

- June 4 Chronic Obstructive Pulmonary Dis-
ease
Aug. 6 Rheumatic Heart Disease

St. Louis University Medical Center
1402 S. Grand Blvd., St. Louis 63104
(314) 664-9800
Contact: Eli M. Nadel, M.D., Cancer Program Coor-
dinator

- May 7 Actions of 5-Fluorouracil

**The Edward Mallinckrodt Institute of Radiology —
Washington University School of Medicine**
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
Contact: Ronald G. Evens, M.D., Director

- City-Wide Radiology Conference
May 12 Parenchymal Liver Disease — Evalua-
tion With Computed Tomography

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000

- Every Wed.
& Fri. 3:00 PM — Basic Sciences to Surgery
Seminar
4:00 PM — Surgical Rounds

Contact: Erich W. Pollak, M.D., Director of Surgical
Education

- First & Third
Saturdays 9:00 AM — Surgical Techniques Semi-
nar
9:45 AM — Morbidity and Mortality
Conference
10:30 AM — Surgical Grand Rounds
Every Tues. 9:00 AM — Medicine Staff Conference
(Except second Tuesday of each
month)

Contact: David S. Sneed, M.D., Director of Medical
Education

University of Missouri School of Medicine
Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
Contact: William D. Bradshaw, M.D.

- May 9-11 Third Annual Missouri Cardiovascular Conference
(Tan-Tar-A, Osage Beach)
- June 2-3 Sixth International Symposium on Intestinal Microecology
- June 21-22 The Emergency Patient
(Kirksville)
- Aug. 1-2 Third Annual Missouri Sports Medicine Symposium
- Aug. 2-3 The Emergency Patient
(Cape Girardeau)
- Aug. 10-11 Third Annual Workshop in Soft Tissue Surgery
- Aug. 7-8 Third Annual Workshop in Soft Tissue Surgery
- Sept. 6-7 The Emergency Patient
(Branson)
- Sept. 12-13 Hypertension Conference
(Tan-Tar-A, Osage Beach)
- Sept. 19-20 Annual Plastic Surgery Symposium for the Primary Physician

- Sept. 26-27 Annual Meeting of the Missouri Perinatal Association
- Oct. 3-4 Second Annual Clinical Neurology Conference
- Oct. 16-18 Second Annual Autumn Rheumatology Symposium
- Oct. 29-31 Medical Ethics Symposium
- Nov. 7-8 21st Annual M.D. Day
- Nov. 13-14 The Physician and the Infection Control Committee

Missouri Baptist Eye Foundation
621 S. New Ballas Rd., Suite 343
St. Louis 63141

- May 5-7 Eye Seminars — Contact Lenses and Intraocular Implants

Missouri Chapter
American College of Surgeons, Inc.
2112 S. Vale, Springfield 65807
(417) 882-7390

Contact: Linda Wheelen, Executive Secretary

- June 13-14 Annual Professional Meeting
(Rock Lane Lodge, Branson)

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Letter to W. H. Herndon, 1861

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New Members

Aqeeb Ahmad, M.D., 6917 W. Florissant, St. Louis 63136, has become a member of St. Louis Metropolitan Medical Society. Dr. Ahmad is a native of India, received his preliminary education at Islamia College and his M.D. degree at Liaquat Medical College in 1970. He specializes in family practice and psychiatry.

Edgar I. Ailor, III, M.D., 401 Keene, Columbia 65201, has become a member of Boone County Medical Society. Dr. Ailor is a native of Cape Girardeau, received his preliminary education at Southeast Missouri State University and his M.D. degree at the University of Missouri-Columbia in 1972. He specializes in otolaryngology.

Lance D. Atkinson, M.D., 626 E. Battlefield Rd., Springfield 65807, has become a member of Greene County Medical Society. Dr. Atkinson is a native of Bethesda, Md., received his preliminary education at Coe College and his M.D. degree at Emory University in 1978. He is in general practice.

Israel Barken, M.D., 213 Stoney View Ct., Creve Coeur 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Barken is a native of Israel, received his preliminary education at Hebrew University and his M.D. degree at Hadassah Medical School in 1974. He specializes in surgery.

Saroj A. Bavishi, M.D., 373 W. 101st Terr., Kansas City 64114, has become a member of Jackson County Medical Society. Dr. Bavishi is a native of India, received her preliminary education at Government Science College and her M.D. degree at Government Medical College in 1971. She specializes in obstetrics and gynecology.

Donald E. Binz, II, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Binz is a native of Alexandria, La., received his preliminary education at the University of Notre Dame and his M.D. degree at the University of Missouri-Columbia in 1979. He specializes in family practice.

Theresa A. Burdick, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Burdick is a

native of Wichita, Kan., received her preliminary education at St. Louis University and her M.D. degree at St. Louis University in 1976. She specializes in obstetrics and gynecology.

Octavio R. Chirino, M.D., 3533 Ritz Center, St. Louis 63125, has become a member of St. Louis Metropolitan Medical Society. Dr. Chirino is a native of Cuba, received his preliminary education at the University of Rochester and his M.D. degree at St. Louis University in 1973. He specializes in obstetrics and gynecology.

Donald W. Cowherd, M.D., St. Louis University, 1325 Grand Ave., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Cowherd is a native of Denver, Colo., received his preliminary education at the University of Colorado and his M.D. degree at the University of Colorado in 1960. He specializes in obstetrics and gynecology.

Ananda DeSilva, M.D., 2050 Tramore Ct., Chesterfield 63017, has become a member of St. Louis Metropolitan Medical Society. Dr. DeSilva is a native of Ceylon, received his preliminary education at the University of Ceylon and his M.D. degree at the University of Ceylon in 1968. He specializes in pediatrics and family practice.

Mary M. Dick, M.D., 141 N. Meramec Ave., Suite 205, Clayton 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. Dick is a native of Chicago, Ill., received her preliminary education at Boston University and her M.D. degree at Washington University in 1975. She specializes in psychiatry.

Said H. Fakhraee, M.D., 500 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Fakhraee is a native of Iran, received his preliminary education at Shiraz University and his M.D. degree at Shiraz University in 1974. He specializes in pediatrics.

Kim Albert Fehrenbacher, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Fehrenbacher is a native of Guam, received his preliminary education at Notre Dame and his M.D. degree at the University of Illinois in 1979. He specializes in family practice.

James H. Freel, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St.

(Continued)



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Please see last page for brief summary, including warnings, precautions, and adverse reactions.

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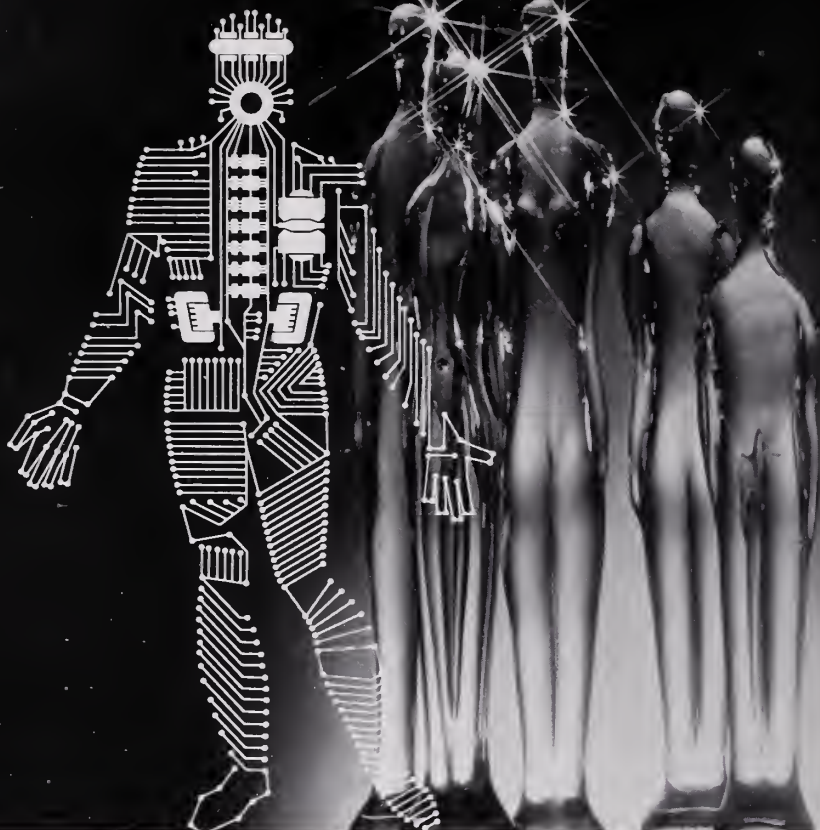
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Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.

Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.

Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

spontaneously occurring retinal degeneration in albino rats treated for 6 months longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness, sedation, constipation, dizziness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug, some of them rarely. (In some instances an exact causal relationship has not been established.) These include: Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormalities in liver function tests; one report of possible drug-induced hepatitis without icter and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chlorthalidone and papaverine hydrochloride. Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase; congestive heart failure, Raynaud phenomenon; vivid dreams or nightmares, insomnia, other behavioral changes; nervousness, restlessness, anxiety and mental depression. Also rash, angioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness or burning of the eyes, dryness of the nasal mucosa, pallor, gynecomastia, weakly positive Coombs' test, asymptomatic electrocardiographic abnormalities manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished or absent reflexes and vomiting followed the accidental ingestion of Catapres (clonidine hydrochloride) by several children from 19 months to 5 years of age. Gastric lavage and administration of an analeptic and vasopressor led to complete recovery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-minute intervals usually abolishes all effects of Catapres (clonidine hydrochloride) overdosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

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Louis Metropolitan Medical Society. Dr. Freel is a native of Bay City, Mich., received his preliminary education at Marquette University and his M.D. degree at Marquette University in 1962. He specializes in obstetrics and gynecology and gynecologic oncology.

Paul J. Friedman, M.D., 9150 E. 41st Terr., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Friedman is a native of Chicago, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1976. He specializes in internal medicine.

June Young Ha, M.D., 711 Grand Ave., Hannibal 63401, has become a member of Marion-Ralls-Shelby County Medical Society. Dr. Ha is a native of Korea, received his preliminary education at Seoul National University and his M.D. degree at Seoul National University in 1971. He specializes in internal medicine and cardiology.

Jamil S. Halim, M.D., Veterans Administration Hospital, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Halim is a native of Thailand, received his preliminary education at the University of Bombay and his M.D. degree at Karnatak University in 1960. He specializes in internal medicine.

Said S. Hamid, M.D., Point Basse Plaza, St. Genevieve 63670, has become a member of Perry-Ste. Genevieve County Medical Society. Dr. Hamid is a native of Afghanistan, received his preliminary education at Kabul University and his M.D. degree at Kabul University in 1968. He specializes in pediatrics and family practice.

James J. Harbrecht, M.D., 730 Medical Plaza, 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Harbrecht is a native of Sandusky, Ohio, received his preliminary education at Rice University and his M.D. degree at the University of Kansas in 1974. He specializes in cardiovascular diseases.

James L. Hargis, M.D., 1211 S. Glenstone, Springfield 65804, has become a member of Greene County Medical Society. Dr. Hargis is a native of Morrilton, Ark., received his preliminary education at the State College of Arkansas and his M.D. degree at the University of Arkansas in 1973. He specializes in internal medicine and pulmonary medicine.

Ann D. Havey, M.D., 407 Maplewood, Columbia 65201, has become a member of Boone County Medical Society. Dr. Havey is a native of Minneapolis, Minn., received her preliminary education at Luther College and her M.D. degree at Southern Illinois University in 1977. She specializes in pathology.

David W. Horan, M.D., 4949 Barnes Hospital Plaza, St. Louis 63122, has become a member of St. Louis Metropolitan Medical Society. Dr. Horan is a native of St. Louis, received his preliminary education at the University of Virginia and his M.D. degree at the University of Virginia in 1978. He specializes in otolaryngology.

Campbell P. Howard, M.D., Children's Mercy Hospital, 24th and Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Howard is a native of Montreal, Canada, received his preliminary education at Simpson College and his M.D. degree at the University of Oklahoma in 1974. He specializes in pediatrics and pediatric endocrinology.

Henry G. Johnson, M.D., 1402 S. Grand, St. Louis 63110, has become a member of St. Louis

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Metropolitan Medical Society. Dr. Johnson is a native of Tuskegee Institute, Ala., received his preliminary education at Hampton Institute and his M.D. degree at Meharry Medical College in 1976. He specializes in obstetrics and gynecology.

Pratibha Khare, M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Khare is a native of India, received her preliminary education at Government Home Science College and her M.D. degree at Government Medical College in 1970. She specializes in anesthesia.

James A. Kliefoth, M.D., 10004 Kennerly Rd., St. Louis 63128, has become a member of St. Louis Metropolitan Medical Society. Dr. Kliefoth is a native of Blue Island, Ill., received his preliminary education at Southern Illinois University and his M.D. degree at Northwestern University in 1974. He specializes in general and peripheral vascular surgery.

Jeffrey C. Kopelson, M.D., 6000 W. Florissant, St. Louis 63136, has become a member of St. Louis Metropolitan Medical Society. Dr. Kopelson is a native of New York, N. Y., received his preliminary education at Syracuse University and his M.D. degree at New York Medical College in 1976. He is in general practice.

Thomas K. Krummenacher, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Krummenacher is a native of St. Louis, received his preliminary education at Boston College and his M.D. degree at St. Louis University in 1978. He specializes in ophthalmology.

Peter L. Litzow, M.D., 1325 S. Grand Blvd., St. Louis 63119, has become a member of St. Louis Metropolitan Medical Society. Dr. Litzow is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at St. Louis University in 1978. He specializes in radiology.

Carlos A. Maitz, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Maitz is a native of Argentina, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1978. He specializes in obstetrics and gynecology.

Olin B. Mauldin, Jr., M.D., 373 W. 101st Terr., Kansas City 64114, has become a member

of Jackson County Medical Society. Dr. Mauldin is a native of McComb, Miss., received his preliminary education at the University of Mississippi and his M.D. degree at the University of Mississippi in 1973. He specializes in pediatrics.

Everett M. Murphy, III, M.D., 545 Penn Park, 2929 Baltimore, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Murphy is a native of Camden, N. J., received his preliminary education at the Oklahoma State University and his M.D. degree at the University of Oklahoma in 1970. He specializes in pulmonary medicine.

Jose M. Pacheco, M.D., 1423 N. Jefferson, Springfield 65802, has become a member of Greene County Medical Society. Dr. Pacheco is a native of Spain, received his preliminary education at Colegio de San Jose and his M.D. degree at Madrid Medical School in 1965. He specializes in radiology and radiation therapy.

Clyde W. Parsons, III, M.D., 118 Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Parsons is a native of Kansas City, received his preliminary education at Southern Methodist University and his M.D. degree at Baylor College in 1974. He specializes in orthopedic surgery.

William E. Pearson, M.D., 12166 Big Bend, Kirkwood 63122, has become a member of St. Louis Metropolitan Medical Society. Dr. Pearson is a native of Ft. Smith, Ark., received his preliminary education at Texas Christian University and his M.D. degree at Washington University in 1968. He specializes in obstetrics and gynecology.

Donald W. Thibeault, M.D., Children's Mercy Hospital, 24th and Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Thibeault is a native of Yarmouth, Nova Scotia, Canada, received his preliminary education at Saint Francis Xavier University and his M.D. degree at Dalhousie University in 1961. He specializes in pediatrics and neonatology.

Gary D. Williams, M.D., 2933 Baltimore, Apt. 401, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Williams is a native of Topeka, Kan., received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1959. He specializes in internal medicine.

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LEO H. POLLOCK, M.D.

FORTY YEARS AGO

Missouri's new Trachoma Hospital in Rolla was opened officially in January. Built at a cost of \$136,000, the new hospital will accommodate 65 patients, stated Dr. J. E. Smith, superintendent. Medical treatment, room and board will be free. Dr. Smith estimates that trachoma, which has cost the state of Missouri more than \$2,000,000 in blind pensions since 1922, can be wiped out in one generation with proper hospital treatment.

Jasper and Pemiscot counties have recently established full-time county health units, bringing to a total of eight the number of counties with such units.

The Medical Section of the Missouri Academy of Science will meet in joint session with the Sixth Councilor District of the Missouri State Medical Association at the Central Missouri State Teachers College in Warrensburg on April 18-19. Dr. M. Pinson Neal, Columbia, is chairman of the Medical Section and Dr. A. J. Campbell, Sedalia, is Councilor for the Sixth District.

The Nodaway-Atchison-Gentry-Worth Counties Medical Society was formed in December, 1939 by the hyphenation of its constituent county medical societies. The new society met at the Hotel Linville in Maryville on February 5.

TWENTY-FIVE YEARS AGO

The closed circuit "Videclinic" television program telecast on February 9 was an amazing presentation which brought a new type of post-graduate education to an audience in 32 states from coast to coast. It was produced and sponsored by Smith, Kline and French Laboratories in cooperation with the American Medical Association. Also presented were thrilling remarks by President Dwight D. Eisenhower and Dr. George F. Lull, secretary and general manager of the AMA.

Two songs written by Vincent T. Williams, M.D. of Kansas City were presented at a Philharmonic "Pop" Concert on February 19 in Kansas City. John S. Myers, M.D., also of Kansas City, appeared in the quartet which presented them.

The American Academy of Allergy elected Stanley F. Hampton, M.D., Richmond Heights, as president at its annual business meeting in New York on February 8.

George H. Wood, M.D., Carthage, is the new president of the Missouri Academy of General Practice.

A farewell party for Alvin R. Cain, M.D., Lamar, was given by the staff of the Lamar Clinic on February 9. Dr. Cain was leaving for military service.

TEN YEARS AGO

Approximately 100 physicians from the MSMA Sixth Councilor District met in Warrensburg on January 14. Featured speaker was Dr. E. Grey Dimond, provost for health sciences at the University of Missouri-Kansas City. His topic was "Changing Ways of Becoming a Doctor." Dr. Dimond said that the proposed program would result in a six-year, after-high-school education plan for medical students. This would shorten the total in-class time by two years.

Based on per-1,000 graduates, the University of Missouri-Columbia School of Medicine has produced more living dermatologists than any other institution in the nation.

The Mineral Area County Medical Society met at the Farmington State Hospital on January 22. Dr. Doyle C. McCraw, president of the Missouri State Medical Association, discussed some of the challenges facing the MSMA in 1970. The business meeting was conducted by Dr. Andrew Fraser, president of the Society.

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Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and

acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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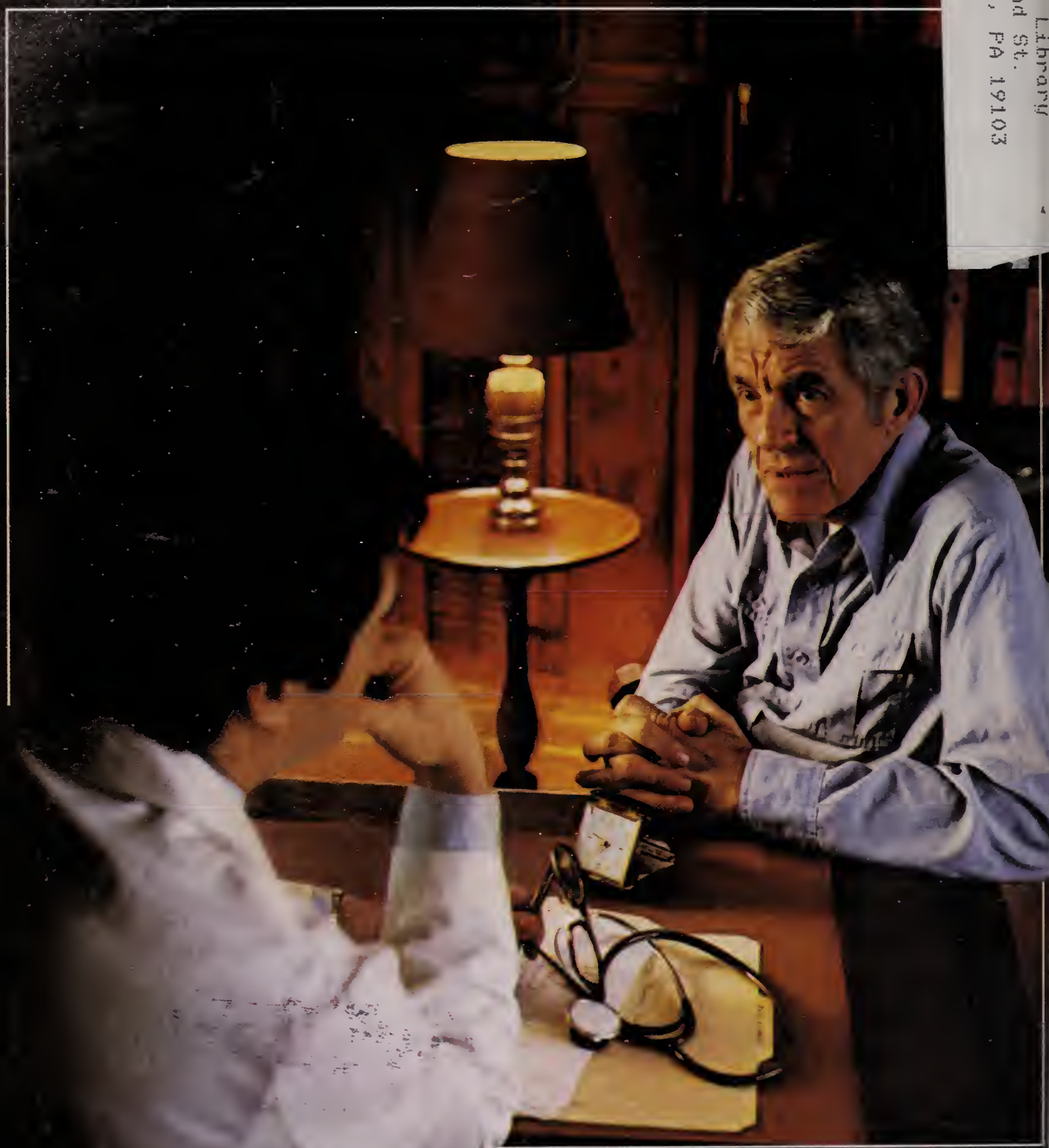
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Missouri Medicine

Volume 77, No. 5

(ISSN 0026-6620)

May, 1980

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**Body
Ultrasonography:
An
Amplification**

M.D.S.

**Carcinoid
Tumor**

**Pancreatic
Pseudocysts**
Case Reports

— Special —

**The Salmon
of the
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Editor's Corner

**Hands
(and Hearts)
Across
The Sea**

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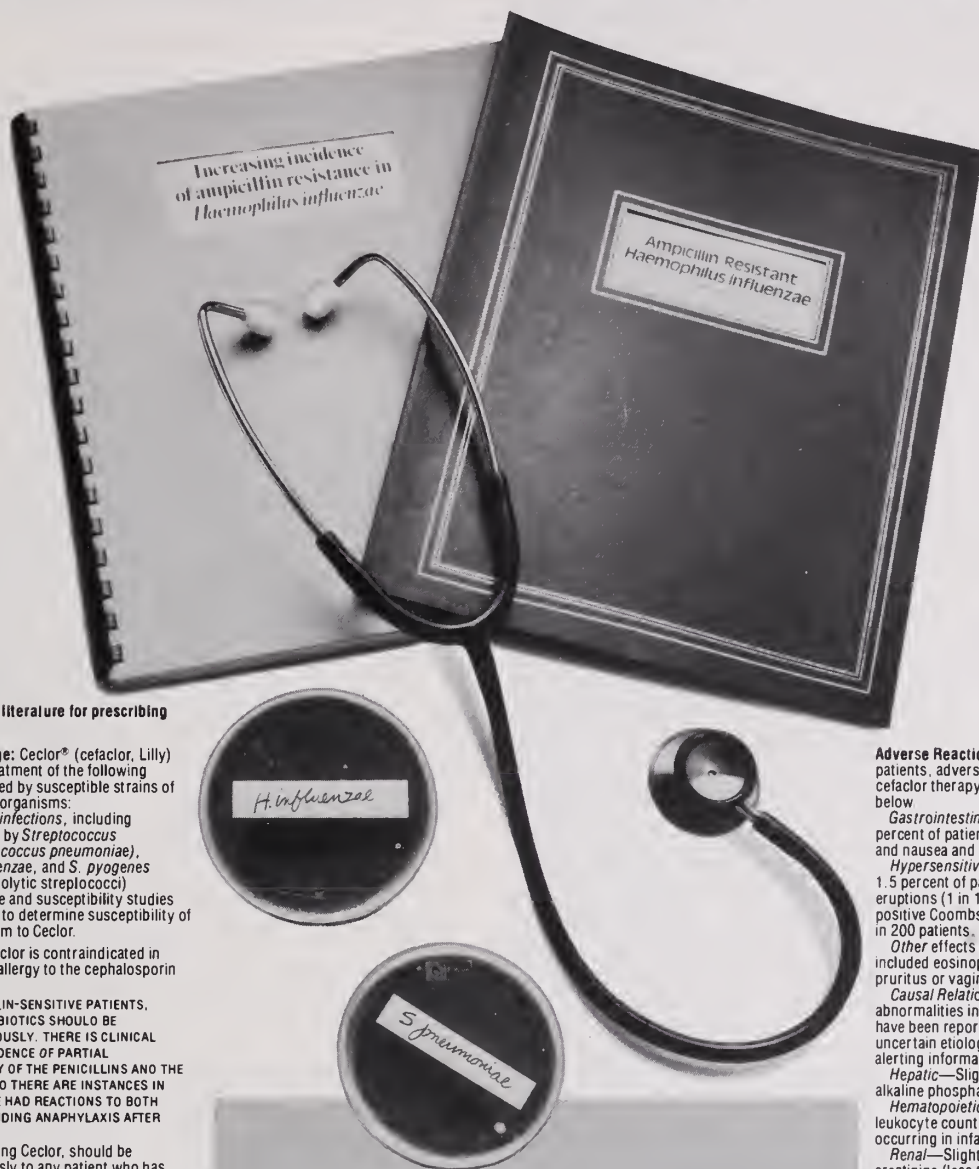
This suspension is being made to allow for certain recapitalization activities of MOMEDICO to go forward. Such recapitlization efforts were approved by the MSMA House of Delegates in their November 11, 1979 Interim Session. Details of this recapitalization will be released at the appropriate time in the near future. In the meantime, we welcome your inquiries and requests for information.

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Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci). Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Usage in Pregnancy:—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy:—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.⁷

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Adverse Reactions: In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

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Hypersensitivity reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transient abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[070379R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.⁸

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285
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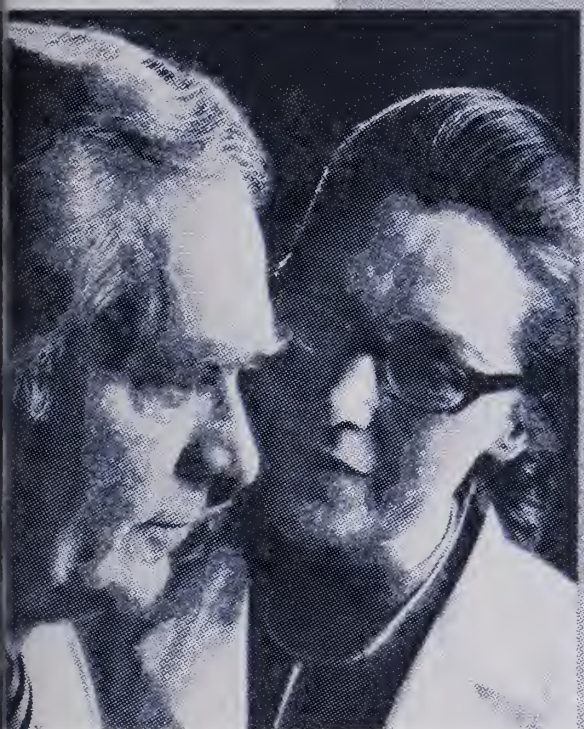
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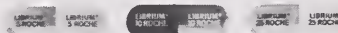
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Antihistamines are also contraindicated in the following conditions: hypersensitivity to azatadine maleate and other antihistamines of similar chemical structure, monoamine oxidase inhibitor therapy (See **DRUG INTERACTIONS** Section).

WARNINGS Antihistamines should be used with considerable caution in patients with: narrow angle glaucoma, stenosing peptic ulcer, pyloroduodenal obstruction, symptomatic prostatic hypertrophy, bladder neck obstruction

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OPTIMINE TABLETS ARE NOT INTENDED FOR USE IN CHILDREN UNDER 12 YEARS OF AGE.

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Use in Activities Requiring Mental Alertness. Patients should be warned about engaging in activities requiring mental alertness, such as driving a car or operating appliances, machinery, etc.

Use in the Elderly (approximately 60 years or older): Antihistamines are more likely to cause dizziness, sedation, and hypotension in elderly patients.

PRECAUTIONS Azatadine maleate has an atropine-like action and, therefore, should be used with caution in patients with a history of bronchial asthma, increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension.

DRUG INTERACTIONS MAO inhibitors prolong and intensify the anticholinergic (drying) effects of antihistamines.

ADVERSE REACTIONS The most frequent adverse reactions are underlined.

General: Urticaria, drug rash, anaphylactic shock, photosensitivity, excessive perspiration, chills, dryness of mouth, nose, and throat

Cardiovascular System: Hypotension, headache, palpitations, tachycardia, extrasystoles.

Hematologic System: Hemolytic anemia, thrombocytopenia, agranulocytosis

Nervous System: Sedation, sleepiness, dizziness, disturbed coordination, fatigue, confusion, restlessness, excitation, nervousness, tremor, irritability, insomnia, euphoria, paresthesias, blurred vision, diplopia, vertigo, tinnitus, acute labyrinthitis, hysteria, neuritis, convulsions.

Gastrointestinal System: Epigastric distress, anorexia, nausea, vomiting, diarrhea, constipation.

Genitourinary System: Urinary frequency, difficult urination, urinary retention, early menses

Respiratory System: Thickening of bronchial secretions, tightness of chest and wheezing, nasal stuffiness.

OVERDOSAGE Antihistamine overdosage reactions may vary from central nervous system depression to stimulation. Stimulation is particularly likely in children. Atropine-like signs and symptoms (dry mouth, fixed, dilated pupils, flushing; and gastrointestinal symptoms) may also occur

If vomiting has not occurred spontaneously, the patient should be induced to vomit. This is best done by having him drink a glass of water or milk after which he should be made to gag. Precautions against aspiration must be taken, especially in infants and children.

If vomiting is unsuccessful, gastric lavage is indicated within three hours after ingestion and even later if large amounts of milk or cream were given beforehand. Isotonic and 1/2 isotonic saline is the lavage solution of choice

Saline cathartics, such as milk of magnesia, draw water into the bowel by osmosis and therefore are valuable for their action in rapid dilution of bowel content.

Stimulants should not be used

Vasopressors may be used to treat hypotension.

FEBRUARY 1977

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For more complete details, consult package insert or Schering literature available from your Schering Representative or Professional Services Department, Schering Corporation, Kenilworth, New Jersey 07033.

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THINK DRY

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THINK
OPTIMINE[®]
azatadine maleate, 1 mg. tablets
FIRST
for relief of allergy symptoms

Rx only

Please see adjacent brief summary of prescribing information.
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ANUSOL-HC

SUPPOSITORIES/CREAM WITH HYDROCORTISONE ACETATE

#1 prescribed hemorrhoidal product

IT WAS
NUMBER ONE
IN 1959

AND IT STILL IS...

The professional source of
modern anorectal comfort

ANUSOL-HC[®] SUPPOSITORIES

Hemorrhoidal Suppositories

ANUSOL-HC[®] CREAM

Rectal Cream with Hydrocortisone Acetate

Caution: Federal law prohibits dispensing without prescription.

Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 2.25 mg; bismuth resorcin compound, 1.75 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Indications: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas and relief of local pain and discomfort following anorectal surgery.

Anusol-HC Cream is also indicated for pruritus ani.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol[®] Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: Symptomatic relief should not delay definitive diagnoses or treatment.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Anusol-HC is not for ophthalmic use.

Dosage and Administration: Anusol-HC Suppositories — Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at

bedtime for 3 to 6 days or until inflammation subsides. Then maintain patient comfort with regular Anusol Suppositories.

Anusol-HC Cream — Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain patient comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories — boxes of 12 (N 0047-0089-12) and boxes of 24 (N 0047-0089-24) in silver foil strips with Anusol-HC W/C printed in black.

Anusol-HC Cream — one-ounce tube (N 0047-0090-01) with plastic applicator.

Store between 59°-86° F (15°-30° C).

Full information is available on request.

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NEWS ROUND - UP

May, 1980

MSMA House adopts Resolutions

The House of Delegates, meeting during the 1980 Annual Session, April 17-20, in Kansas City considered 16 Resolutions.

Several resolutions adopted by the House, will change the MSMA Bylaws. Resolutions introduced by the St. Louis Metropolitan Medical Society and the Greene County Medical Society considered Privilege of the Floor, during House of Delegates Meeting. As accepted by the House, only duly elected Delegates have the privilege of the floor, however, any Delegate may request the privilege of the floor for any other person. This privilege may be granted or denied by the Speaker, subject to disapproval by a majority vote of the House.

Another resolution will effect a bylaws change by continuing the Missouri State Medical Foundation assessment for a period of three years. In light of diminishing Federal funds for medical students and MSMA commitment to Missouri medical students, the House voted to continue the \$10 a member assessment for the years of 1981, 1982, 1983.

In all, the House adopted or referred 14 resolutions. Brief explanations of these resolutions follow.

- CT Scanners — Calls for the Department of Health and Human Services to modify its restrictions of CT Scanner technology. Directed the Missouri Delegates to the AMA to introduce a similar resolution.

- Proper Care for Patients — Supported the concept that necessary medical care shall be available regardless of ability to pay. Called for MSMA to work with the Governor, State Legislature, and the Division of Family Services to achieve a more reasonable level of compensation for providing care under Title XIX.

- AMA Council Appointments — Called for Missouri Delegates to the AMA to encourage appointments of qualified physicians in private practice to serve on national educational councils, committees and commissions in which the AMA participates.

- Administration of CME — Urged the AMA to stand firm in its concept that CME accrediting be conducted on the state level and AMA be the only accrediting body.

- Support of Diploma Nursing Schools — MSMA supports all forms of nursing education. Directed MSMA Delegates to the AMA to introduce similar resolution.

- Eligibility for MSMF Loans — Changes MSMA policy regarding eligibility for Medical Foundation Loans. All students receiving MSMF loans must now be members of MSMA.

- Definition of Medical Practice — Referred to Council.



Outgoing MSMA President, Dr. Andrew McCanse turns the gavel over to 1980-81 President, Dr. Richard Bradley.

- Board of Healing Arts — Establishes MSMA Liaison Committee with the Missouri State Board of Registration for the Healing Arts. President Bradley named the following members to the committee: T. J. Cooper, M.D., St. Louis, Chairman; Donald McIntosh, M.D., Kansas City; John I. Matthews, M.D., Jefferson City; John N. Martin, M.D., St. Joseph; Howard J. McAlhany, M.D., Springfield and Andrew McCanse, M.D., Kansas City.

- All American Medical Hall of Fame — Directs the Missouri Delegates to the AMA to introduce a resolution during the 1980 Annual Meeting, requesting endorsing the concept of a Medical Hall of Fame in St. Louis.

- Certificate of Membership — MSMA will design, with Council approval, a certificate of membership in MSMA. This certificate will be available to each member in good standing.

- Better Eye Care — Calls for the MSMA to adopt a policy that optometrists and other non-medical practitioners who regularly examine eyes be required to refer to a licensed physician any patient with the following signs or symptoms:

1. Inability to achieve 20/40 visual acuity in either eye;
2. Experience with flashes of light, floaters, transient dimming of vision, loss of vision or pain in an eye, the lid, or the orbit;
3. Double vision or excessive tearing;
4. Permanent to temporary loss of any part of the visual field;
5. Presence of corneal opacities or abnormalities in the normally transparent media of the eye, the ocular fundus or the disc;
6. A tumor or swelling of the eyelids or orbit or protrusion of either eye;
7. Inflammation of the lid, conjunctiva or globe, with or without discharge.

Dr. Bradley installed as President of MSMA; Dr. Hansbrough elected President-Elect

Dr. Richard V. Bradley, St. Louis, was installed as President of the Missouri State Medical Association during the Past President's Banquet at the 122nd Annual Session, April 17-20, in Kansas City.

Dr. Bradley succeeds Dr. Andrew McCanse, Kansas City, who served as President during 1979-1980.

Dr. Hansbrough, Poplar Bluff, was unanimously elected as President-Elect of the MSMA and will assume his position as President during the 1981 Annual Session.

Dr. Hansbrough is Immediate Past Chairman of the MSMA Council and has been elected as the Councilor from the Tenth District for several terms.

In other elections, Delegates to the House selected three Vice Presidents, a Speaker and Vice Speaker, three new Delegates to the AMA and four Alternate Delegates. A fourth AMA Delegate was elected this year, due to the increased membership in MSMA. The New Officers are:

Vice Presidents

Dr. Francis X. Lieb, St. Louis
Dr. R. V. Tompson, Moberly
Dr. Joseph S. Cope, Lexington

Speaker

Dr. Jay Meyer, St. Louis

Vice Speaker

Dr. Barbara Buchanan, Kansas City

AMA Delegates

Dr. Hugh E. Stephenson, Jr., Columbia
Dr. Francis X. Lieb, St. Louis
Dr. George M. Bohigian, St. Louis

AMA Alternate Delegates

Dr. Richard P. Bowles, Liberty
Dr. Richard V. Bradley, St. Louis
Dr. Marvin A. Singleton, Joplin
Dr. Andrew McCanse, Kansas City

Councilor Districts also elected new Councilors for those terms which expired this Annual Session. The Fifth Councilor District, due to increased membership, was allotted one additional Councilor. The Medical School Component Societies also elected a Councilor for 1980-1981. This brings the MSMA Council to a total of 20 Councilors. The Councilors elected are:



Councilors selected during the 1980 Annual Session are: (left to right) Drs. Theodore Paletta, Third District; Peter Ekern, Fifth District; Marvin Singleton, Eighth District; John Matthews, Fifth District; (bottom row) Drs. J. Otto Lottes, Third District, Frederick Peterson, Third District; and Richard Hedges, First District.



Dr. Eugene Hansbrough, MSMA President Elect, (right) and Dr. Bradley consult during Annual Session.

First District

Dr. Richard C. Hedges, N. Kansas City

Third District

Dr. J. Otto Lottes, St. Louis
Dr. Theodore L. Paletta, St. Louis
Dr. Frederick D. Peterson, St. Louis

Fifth District

Dr. John I. Matthews, Jefferson City

Seventh District

Dr. Irving H. Clark, Kansas City
Dr. Ronald A. Youmans, Kansas City

Eighth District

Dr. Marvin A. Singleton, Joplin

Ninth District

Dr. Jack Wiles, West Plains

Tenth District

Dr. George H. Ladyman, Poplar Bluff

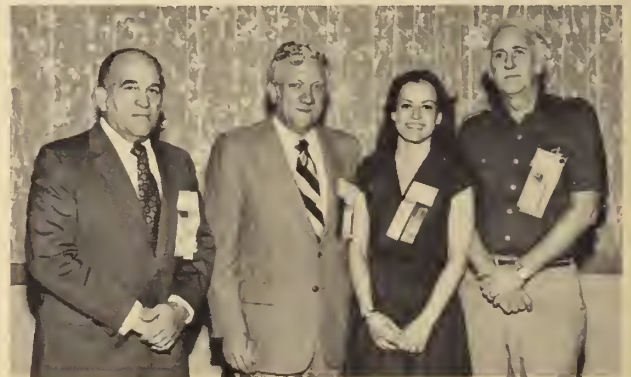
Student Councilor

Diane Budd-Stofferahn

Rock Hill, Washington University

In a Council meeting following the MSMA House of Delegates Session on April 20, the Council elected Dr. John I. Matthews as Chairman of the Council and Dr. Irving H. Clark as Vice Chairman.

The Council also reelected Dr. Carol F. Williams, St. Louis, as Treasurer and elected Dr. B. A. Moranville, Columbia, as Secretary.



Also elected as Councilors were: (left to right) Drs. Irving Clark, Seventh District; Jack Wiles, Ninth District; Ms. Diane Budd-Stofferahn, Student Councilor; and George Ladyman, Tenth District.

1980 LEGISLATURE ENDS

The 1980 Missouri General Assembly started with a rush but ended in a walk as few pieces of legislation gained final passage prior to the April 30 adjournment. And, it might be added, that is not bad news.

Of the more than 1,300 bills introduced this Session, only 107 (excluding appropriation bills) were passed. Medicine fared about the same as only a few of the more than 160 measures either supported or opposed by the MSMA were adopted. The good news is that no bills or amendments actively opposed by the Association made their way through both houses.

"In a Session in which we had to oppose so many issues," said Dr. John I. Matthews, chairman of the MSMA Legislative Committee, "I feel medicine was fortunate." Matthews gave much credit to the MSMA "Key Contacts" who volunteer to contact their personal Legislators on important issues.

One bill which did pass was SB 532, which eliminates the requirement of a pre-marital blood test. The MSMA House requested such a bill be introduced. Another important issue, HB 1724, the Omnibus Mental Health bill, was passed with the amendments sought by MSMA.

HB 1444, the Determination of Death bill, was next up for final Senate consideration when the Session ended. It will be re-introduced next year.

Several measures opposed by medicine did not pass. These included attempts by optometry to use drugs in eyes, efforts by nurses to gain direct Medicaid payments, several bills which would have licensed allied health personnel and, of course, a concerted drive to legalize Laetrile in Missouri.

In his report to the House of Delegates at the Annual Session, Dr. Matthews brought the Delegates up-to-date on the current Legislative scene:

"Basically, it appears that nearly everyone wants to 'practice just a little bit of medicine'. And, what makes it tougher is that many of those who are striving to expand their practices are long-time friends and allies of medicine. Suddenly, we find ourselves on the opposite sides of issues with groups we have historically cooperated with in insuring good health-related legislation in our State.

"We believe that the majority of the issues which this House has pressed for the past several years have been guided rather successfully through the Legislature. Take for example Resolutions adopted by this House last Spring and Fall. The 96-hour holding period for patients admitted to mental institutions is embodied in the 'Omnibus Mental Health Bill.'

"Also, this House asked for elimination of the pre-marital blood test requirement because this is no longer an effective or cost-efficient method to locate syphilis. And we were successful.

"There are failures, too. The MSMA has been unable to gain passage of bills designed to alleviate the professional liability insurance cost problem. The Missouri Legislature adopted one of the most comprehensive medical professional liability packages in the nation in 1976, but, since that time, the Legislature has been unwilling to take another step in that direction. In fact, one of the bills in that package, which established pre-trial hearing panels, has been declared unconstitutional by the state Supreme Court.

If it is any solace to MSMA members, your Committee would point out that no other state is having any better success in the medical professional liability area. Supposedly, our "crisis" is over . . . although we know better. Also, our legal brethren have been unable to push even the most simple legal professional liability bill through the Legislature and, despite the horror stories we hear almost daily, the business community has been just as ineffective in gaining passage of a product liability bill. In '76, medicine was in the right place at the right time, but since that time it appears that Legislators throughout the nation consider rising liability insurance rates as part of "doing business". But, your Committee will keep trying.

"Whereas chiropractic was once the only field medicine felt was trying to expand its practice into the area of medicine, now we see bills offered by nurses, physicians assistants, optometrists and other allied health personnel, which would appear to be attempts to gain inroads into areas physicians have long felt was the practice of medicine. Your Committee wishes it could forecast that these issues would fade away . . . but, they won't.

"We have members who want to utilize nurse practitioners and physicians assistants and, in fact, schools in Missouri are turning out people in both of these professions. We have ophthalmologists who appear before Legislative Committees and testify that optometrists are, indeed, qualified to apply certain drugs to the eye. Legislators look at these efforts to expand or create practice areas from two views. One, of course, is cost and the premise that such paramedical personnel can provide services at a lower cost. But, perhaps surprisingly, most Legislators are looking at these paramedical personnel as a way to increase access to health care for the people of the state.

"Whatever the future may bring, your Committee feels that MSMA members should be apprised of certain facts:

- To date, optometrists cannot use drugs in Missouri although more than 30 other states have already approved such legislation;
- Despite having more chiropractors per population than any other state, according to AMA statistics, Missouri's chiropractic statutes are the most strict in the nation;
- Although 47 states recognize physician's assistants, Missouri does not license P.A.'s. Interestingly, many state medical associations which originally pushed to license P.A.'s are now finding that they must oppose annual attempts by P.A.'s to expand their practice;
- Nurse practitioners, in testimony before Legislative Committees, claim that they now can practice more or less independently in more than 40 states. To date, N.P.'s have been unable to gain legislative approval to expand their practice in Missouri. Also, moves by Registered Nurses to qualify for direct payment for services from Medicaid have been denied by the Missouri Legislature;

(Continued on Page 4)

Legislature (continued)

- "Cures for all ills" have also been headed off by your Association. Treatment by acupuncture by non-physicians has been approved in many states and, most recently, the sale and use of laetrile as a cancer treatment had been okayed by about half of the states. Your association has been in the forefront in preventing passage of such legislation in Missouri.

"These examples show the opinions of Missouri physicians have been fairly considered by the Missouri General Assembly.

"In the recent General Assembly, more than 160 bills which could affect your practice and your patients were introduced and your Association presented personal testimony on more than 25 measures and provided written testimony on perhaps 20 others. To have an impact on this high number of issues requires the involvement of all MSMA members. Your Committee urges each of you to become personally acquainted with your Legislators and, most importantly, be willing to carry medicine's story to these individuals who decide on the laws that ultimately determine how medicine is to be practiced in Missouri."

Medical Students Receive Honors Graduate Award

The Missouri State Medical Association recently recognized the outstanding medical student at each of the four Medical Schools. The recipients of the Honors Graduate Award were presented with a cash prize and a certificate of achievement, during their Commencement Exercises.

The Awards were presented to: Steven Roy McGee, Washington University; Wolfe B. Gerecht, University of Missouri-Kansas City; Douglas Bradley, University of Missouri-Columbia; and David Thomas Francois, St. Louis University.

Physicians Win Pen and Pencil sets

Eight Cross Pen and Pencil sets were given away as attendance prizes as this year's Annual Session. Names of physician winners were drawn from cards submitted to the Technical Exhibits Booths.

The winners were: Drs. Leo M. Mullen, Kansas city; Milton B. Ozar, Kansas City; Eugene T. Hansbrough, Poplar Bluff; James Sargent, Sikeston; George Wee, Ellisville; D. E. Eggleston, Macon; Max A. Heeb, Sikeston; and Laureano G. Mayuga, Cabool.

Gold Tie Tack Found

A gold tie tack was found during the MSMA Annual Session in Kansas City. It appears to be old but in excellent condition. If you lost this item, please contact the MSMA Office at 314-636-5151, to identify it.

New Guidelines for Prescribers of Controlled Substances

The federal Drug Enforcement Administration recently issued new guidelines for the Prescribers of Controlled Substances. The six general guidelines were approved during the AMA House of Delegates meeting in 1979.

AMA Executive Vice President, James H. Sammons, M.D., wrote to the DEA, "We see these guidelines as a positive step in the promoting of sound prescribing practices, and we will, of course, continue our efforts to inform the medical profession of the special considerations that must be taken into account when controlled substances are used for therapeutic purposes."

In 1974 the DEA formed the Practitioners Working Committee. Out of this committee, came the new guidelines. The committee included representatives from the AMA, American Dental Association, American Nurses Association, American Veterinary Medical Association, and the National Institute on Drug Abuse.

The Six General guidelines state:

- Controlled substances have a legitimate clinical usefulness and the prescriber should not hesitate to consider prescribing them when they are indicated for the comfort and well-being of patients.

- Prescribing controlled substances for legitimate medical uses requires special caution because of their potential for abuse and dependence."

- Exercise good judgement in administering and prescribing controlled substances so that diversion to illicit use is avoided and the development of drug dependence is minimized or prevented."

- Guard against contributing to drug abuse through injudicious prescription writing practices, or by acquiescence to unwarranted demands of some patients."

- Each prescriber is asked to examine his/her individual prescribing practices to insure that all prescription orders for controlled substances are written with caution."

- Make specific effort to ensure that multiple prescription orders are not being obtained by the patient from different prescribers."

If you would like a copy of the guidelines, write to the Department of Mental Health, AMA, 535 North Dearborn, Chicago, Ill., 60610.

Attitude and Opinion Survey Mailed to Physicians

The AMA Office of Membership Development mailed in Mid-April, 10,000 questionnaires to physicians across the country. The four-page survey asked for opinions and attitudes regarding membership in organized medicine.

This study gives member and non-member physicians, including 2,000 foreign medical graduates and 2,000 women, the opportunity to be heard on the national level of organized medicine.

If you received the questionnaire, you are encouraged to fill it out and return it to the AMA. All responses will be handled in strict confidence and only aggregate results will be used.

**MSMA Committee on the Impaired Physician
Confidential 24-hour Recorded Message Telephone Number
314-636-5744**

FOR MODERATE PAIN

A therapeutic dose
of acetaminophen
in one tablet

A therapeutic dose
of two complementary
analgesics

The convenience and
economy of a
dosage schedule of
one tablet, every four
hours as needed

WHY NOT WYGESIC[®] CW

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdosage).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group. **PRECAUTIONS:** Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients. Some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see Warnings). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977). Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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WHEN ANXIETY AND TENSION MAGNIFY PAIN

IN MUSCULOSKELETAL DISEASE*



A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC[®]

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e., more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordi-

azepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery. Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or am-

phetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug. Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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Editor's Corner

HANDS (AND HEARTS) ACROSS THE SEA

The other evening I enjoyed a brief time of comment from a colleague whose opinions I respect and whose medical knowledge I venerate. He was lamenting that people who certainly should know better had translated shortcomings of the British National Health Service into the American health delivery (I hate that term) picture, and with the same regrettable consequences.

It seems that the idea of shipping myocardial infarction patients home from the hospital on the seventh day originated in Britain. This was hailed as a medical breakthrough and one which gave our political liberals much cause to weep over our own abused citizens languishing in hospitals for much longer periods. However, even at the time of all this publicity, I, a lowly dermatologist, was disturbed. Can human nature be so abruptly changed? I seemed to recall that if a chap survived the first two days of his coronary that the next time of hazard was at ten to 14 days. What does one do down in Persimmonville when his pulse becomes a flutter and his survival time in ventricular fibrillation a matter of minutes?

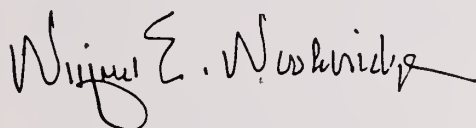
It was then I discovered that, indeed, human nature had not really changed at all. But instead:

- (1) The seven-day hospital stay in Britain was not a matter of therapeutic triumph. It resulted from acute bed shortage.
- (2) The adoption of this concept in America was not based on critical examination of fact but, rather, was a frantic urge to climb on a popular bandwagon. The politicians made hay of it!

The results? Quite what one would expect. Some of those at ten to 14 days post-coronary had their expected complications. The difference was that they died on the way to the hospital or in the emergency room. My friend assures me this has happened several times in Springfield. He believes most of those people would have survived if still monitored in a cardiac unit.

So the interesting food for thought in all this (the lives of the patients excepted) is that people in America, who are responsible for those patients, should have been diverted from their ideas of quality care by the pressures of political expediency. Is medical fact all that fragile?

So, again, the maxim of de Montesquieu, "It is not man who changes. It is man's idea of man."



Wilfred E. Wooldridge, M.D.

The Salmon of the Moisie River

By
JAMES W. BAGBY, M.D., *St. Louis*

I'LL DESCRIBE for you a day in June on the Moisie River in Eastern Quebec, considered by many to be the finest salmon river in the world.

The Moisie is a big river, 200 miles long, arising in the mountains of Labrador and emptying into the Gulf of St. Lawrence near Seven Islands. It's about the size of the Yellowstone after it leaves the park in Montana or of the White River below Bull Shoals.

At dinner the night before, I got top choice in the draw. I took the Molly Adams pool, at the river stage of plus 1¼ ft. thought to be the best.

It was daylight at 3 AM. I had trouble staying in bed until 7:30. My host grumbled. "What the hell were you doing up so early? I thought you had enough to eat and drink last night to stay in bed until noon." I grinned at him, "Who turned out the lights and radio, aired the dog and banked the fire?"

At breakfast, "Jus de pomplamousse, des oeufs a la coque avec jambon, s'il vous plaît, et Sanka." You had better learn a little French if you want to eat or catch a fish in this part of the world. After ten years, I'm able to get by. Quebec and Labrador are hospitable to outlanders if they make some attempt at French. They are stone-deaf otherwise but, in return, they never laugh at your fumbling attempts at the language. My waitress, Gitanne, I think rather likes me in the same way you would like a dim-witted visitor from Mars whom you had seen yearly for some years. The ham turns out to be bacon. Whether it is my fault, hers or Jean-Luc, the cook's, I'll never know.

Mitchell Campbell, the tri-lingual superintendent and usually a pessimist, predicts a good day. He says a lot of new fish moved up the river during the night. I suspect he never sleeps, but spends the nights watching the river for leaping fish on their way upstream.

At 9 o'clock, the canoe comes up the river and stops at our cabin. Baptiste Hamilton, the gaffer, is in the stern. His son, Girarde, is in the bow. Gaffs are no longer used, but the title remains. The gaffer is the head man and should be politely consulted on what fly to use and how to fish it. He is jealous of his ability to tie on a fly with a knot that will not slip, a necessity when fish require

one-half hour or longer to land. Against the swift current, they paddle us upstream to the first drop on the Molly Adams pool. The water is clear, temperature 46 degrees, the air about 55 degrees, clear sky, no wind. The water is flecked with foam, and the roar of Les Rapides one-half mile above fills our ears.

The anchor is dropped. Baptiste crouches in the stern, his paddle in the water to keep the canoe straight. I sit in the middle on a high chair, a somewhat precarious perch. My rod is a two-handled 9½ ft 6 oz fibreglass. The reel, a Bogdan with 30 yards of fast-sinking line and 150 yards of backing. The leader is tapered, 8 lb test, 9 ft long.

After consultation, Baptiste ties on a #6 Silver Rat with double hook. I strip off 10 ft of line and begin the routine. Two hundred yards below us, a salmon suddenly leaps high into the air and crashes back into the water. Why they do this no one knows, but their scientific name is *Salmo Salar*, which means "The Leaper." Our isolation is complete. There is no other human within sight or sound. No outboard motors are used by the Club.

A cast to the side, quartering downstream, retrieved after it straightens out fully; then add 8 in or 10 in of line, another cast until, finally, I must stand to get more distance. Then repeat on the other side of the canoe. No action. A salmon will take a fly only in a narrow arc above him. Rarely will he chase it as will a trout or bass.

We raise the anchor and drift about 100 ft downstream with Baptiste carefully positioning us, by marks on the bank, over this known salmon lie. Again, no action. After the third drop and on the right side, a great silver torpedo comes from the bottom, noses the fly and drops out of sight. I do not cast over him again, but shift to fishing the other side of the canoe. Five minutes later, I move back to him. A repeat performance. Again, I impatiently rest him for five minutes, which seems like five hours.

Baptiste wishes to "changer la mouche," so we go to a #8 Silver Rat. This time, success. I see him take la mouche down with him. It is not necessary to set the hook on a salmon. For a moment, nothing happens. Then, he realizes something is wrong and takes off for the far bank of the river

with a heart-stopping, reel-screaming rush. The brake is set for a 2 lb or 3 lb pull. About 75 yards away, and not where I expected, he goes up in the air. I point the rod at him and down he comes with a resounding splash.

"Vingt-et-un," says Baptiste. The fish will be within a pound of the 21 he has guessed. Since he loves to win a bet, I shake my head and say, "Vingt-Cinq pour un dollar."

Girarde has retrieved the anchor, and we paddle in the direction of the fish. He jumps again and again, usually at the end of a fast dash of 50 to 75 yards. We make our way to shore slowly and I get out on the bank to land him. It is difficult and dangerous to net a large salmon from a canoe. His runs become shorter. Finally, he is just beyond the reach of the net, holding his own against the current. He yields to the pressure of the erect rod and comes in close enough and is scooped up, banged on the head with a heavy priest and we all admire him.

This is a moment of sadness. He has traveled all these thousands of miles to return home to reproduce his kind only to be killed before his fulfillment. Yet, at least, he will be remembered. Not so, had he been taken in a net, killed by a seal, poisoned by pollution or stopped by a dam. It took 24 minutes to kill him, close to the old English rule of a pound per minute.

Out of the same pool that day, I took my limit of three fish, this one of 21 lb, a 26-pounder and one of 19. I released three "slinks" or mended kelts — salmon that spent the winter under the ice and are long, skinny caricatures of sea-run salmon. They are trying to regain their weight and health. One salmon that I kept had sea-lice on him, a sign that he had been in fresh water only a day or two. One had deep net marks back of the gills. He had been in a gill net and had fought his way free. There are still commercial gill nets in the Gulf, but they are being bought up by the provincial government and closed.

Back at camp, a young fisheries biologist weighs, measures and examines the scales of my three. They had been two years at sea, feeding off the coast of Greenland. One had a scar on his tail, the bite of a "loup de mer," wolf of the sea, a seal and deadly enemy of salmon.

Then, back to the cabin to shower and dress for drinks and dinner at nine and the next drawing against the coming day.

The greatest salmon river in the world? In numbers of large salmon, certainly. The average weight varies yearly from 14 lb to 20 lb. Nowhere

Special Article

I believe MISSOURI MEDICINE might very properly devote occasional space to the exploits of MSMA members.

This article by a St. Louis dermatologist describes an adventure of one of us which is beyond the ordinary. I think it is *en famille* and deserves attention.

It is an extraordinarily well-written account of Labrador salmon fishing. — Ed.

else can this many fish this large be caught in one day. Larger fish have been caught in Norway, New Brunswick and Nova Scotia and elsewhere, but many try in these places for a week without landing a fish. In Iceland, a 20 lb fish is a rarity, though they do have good fishing for smaller fish. Most of the great rivers of the world have been badly damaged by pollution and neating. The late Ted Bates of New York told me he had killed more than 3,000 salmon over the years. Having fished nearly all of the major Atlantic salmon rivers of the world, he considered the Moisie beyond compare!

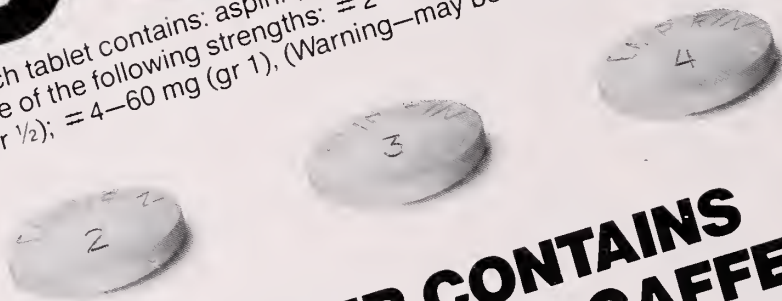
About ten miles of the Moisie above the estuary are open to public fishing. The remainder of the river is privately owned, and it is due to the guardianship of the private owners that it remains so great. Were the entire river opened to public fishing, the runs would be completely destroyed in a few years and a great resource would be lost forever. Fortunately, the Provincial government knows this.

Interestingly, the Adams family of St. Louis bought this river in the late 1800s. They and guests fished it for years, coming by schooner from Quebec City, a distance of 300 miles. The largest salmon ever taken on a fly here was caught by the late Edwin Steedman, also a St. Louisan. It weighed 46 lb 2 oz. This mighty fish is mounted above the fireplace in the dining room of the club. The best afternoon's fishing was had several years ago by John Olin of Alton and St. Louis who, in two-hours time, killed three fish weighing 33, 34 and 35 lb. This occurred in the Cran Cerré, the most beautiful pool I've ever seen.

Friends ask, "Hasn't this spoiled you for other fishing?" The answer is "no." It is just as different from trout fishing as quail hunting is from goose shooting. Whatever I'm doing at the time, I like the best.

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Special Review Article

FRANK H. KNIGHT, M.D., *Columbia*

Body Ultrasonography: An Amplification

THE March 8 and 15, 1979 issues of the *New England Journal of Medicine* contained a two-part, 18-page superb review article by Joseph T. Ferrucci, Jr., M.D. entitled "Body Ultrasonography." The article reviews current applications, diagnostic criteria and accuracy of ultrasound (US), includes comments on toxicity and closes with a discussion of the interrelationship between body US and body computed tomography (CT) with comparisons where applicable. The article is concise, considering that it comprehensively includes discussion of every important application of US to the trunk (except cardiac and doppler). The 269 references define the "state of the art," 1979. This work is a "must" for those in the field of ultrasound and for those referring patients, if only for reading of the organ/area review for the area(s) for which one refers patients. A helpful hint for those not in the field of US might be to skip the early paragraphs under the headings "Physical Basis" and "Gray Scale." These are guaranteed to sidetrack you.

I plan to amplify two areas discussed to some extent by Ferrucci. Ultrasound localization of fluid and solid masses for purposes of needle or catheter puncture/drainage is a proven technique which I believe is underutilized. In addition, the biologic effects of ultrasound deserves discussion in the light of new data of potential significance.

LOCALIZATION FOR FLUID ASPIRATION, ASPIRATION BIOPSY AND DRAINAGE

Since ultrasound is capable of showing location, size and depth of soft tissue masses and organs, procedures have been described to allow removal of fluid or tissue for diagnostic or therapeutic purposes or both. Also, contrast may be introduced into a fluid space for diagnosis.

This direct approach often has the potential of reducing the time necessary for diagnosis, avoiding more hazardous or uncomfortable examina-

With continued experience, clinical research and improved technology, the practical uses of ultrasound in medical diagnosis are increasing rapidly. Recent review articles, such as that by Ferrucci entitled "Body Ultrasonography," outline applications of ultrasound in many situations involving the human trunk. This article expands upon and refers to new research involving localization of masses for fluid aspiration, aspiration biopsy and drainage. Also, the author discusses new data on the biologic effects of ultrasound.

Dr. Knight is Assistant Professor, Department of Radiology, University of Missouri-Columbia School of Medicine.

tions or eliminating the need for exploratory laparotomy.

Thin needle aspiration of renal, hepatic and pancreatic cysts and of urinomas, abscesses and hematomas with injection of contrast when appropriate, has been offered by users of ultrasound for some years.¹ Potential for cost saving was set forth by Gronvall *et al*² in 1977 when they described a method of ultrasound-guided percutaneous drainage of fluid masses using an angiographic catheter technique. Gerzof *et al*³ used the percutaneous catheter technique to drain abscesses in 24 patients. Curative results were obtained in 22 patients with no need for surgery. Similarly, ultrasonically guided percutaneous nephrostomy was described in 1976 by Pedersen⁴ and in pediatric patients by Babcock *et al*⁵ in 1979. Ultrasonically guided antegrade pyelography⁶ is easily accomplished with the thin needle when pyelocaliectasis is present. Recent ultrasonically guided percutaneous pancreatography has been described by Cooperbert⁷ in two patients with obstruction of the pancreatic duct.

Core needle biopsy of soft tissue organs, most notably the kidney, can be facilitated by ultrasound localization. For some time we have used a technique for kidney localization similar to that reiterated by Mets *et al*.⁸ Their overall results showed renal tissue obtained in 94.5% and glomeruli obtained in 83.4% of cases. This procedure has been found to be more accurate for localization of the kidney than radiography or nuclear medicine.⁹

We have found a useful application of ultrasound to be in mapping out pleural effusions to assist in thoracentesis. This is best done on patients with considerable pleural thickening on the chest radiograph but on whom one or more attempts at thoracentesis have failed. Laing and Filly,¹⁰ in a January, 1978 article, gave several references describing technique and present problems in evaluation of pleural opacities.

A proven procedure that is underutilized in this country is "thin needle" aspiration of soft tissue masses for cytologic examination. What began as a simple means of evaluating enlarged superficial lymph nodes has developed into a procedure capable of diagnosing tumors deep in the abdomen in some patients who might consequently be spared exploratory laparotomy. Using whatever means of localization is appropriate (e.g., ultrasound, CT, angiography, endoscopic retrograde cannulation of the pancreas), a thin needle is inserted into a

known mass and manipulated somewhat while suction is applied by retraction on a syringe. The resulting aspirate is then stained and examined. Results have been accurate for determining the presence of malignancy.¹¹⁻¹³ Sometimes, tissue specificity can be stated. Even though, when the needle is passed into a retroperitoneal mass and it is known to pass directly through bowel, vessels and organs, the complication rate is extremely small. Holm¹⁴ described this procedure with only a single significant complication in more than 1,000 cases in 1975.

Kidd¹⁵ believes that the complication rate, which includes hemorrhage and tumor seeding along the needle tract, may be reduced even further. Multiple passes with the thin needle is the standard procedure, with the aspirate fixed by Pap technique. However, rapid stain technique recommended by Kidd allows cytologic examination of the aspirate within only five to ten minutes instead of hours. Confirmation of malignancy might then be obtained after only one pass of the needle.

The most helpful applications of the thin needle aspiration technique would include a tumor of the body or tail of the pancreas which is considered unresectable at angiography (or on the basis of other radiographic or clinical information) or which is large on ultrasound (or CT).¹¹ Tumor of the head of the pancreas is usually not recommended for percutaneous thin needle aspiration since that patient will usually be undergoing laparotomy for diversion of the biliary or gastrointestinal (GI) tracts, at which time tumor tissue may be obtained. Another use would be to prove that an abdominal mass or organ abnormality in a patient with a known primary malignancy is due to metastatic or recurrent malignancy. Also, in a patient with known metastatic disease, aspiration biopsy of an abdominal mass or organ abnormality might prove the site of the primary malignancy. The purpose of the percutaneous needle aspiration biopsy in the above examples would be to spare the patient an unnecessary laparotomy performed only to obtain tissue confirmation of malignancy. When the aspiration cannot serve this purpose, or otherwise shorten the delay until therapy, it is not indicated.

The aspiration technique actually appears to have intraoperative application. Decker and Lloyd¹⁶ found that fine-needle aspiration biopsy of ampullary and pancreatic carcinoma at surgery was more accurate, safer and simpler than wedge or core biopsy.

Using real-time ultrasound for localization of an aspiration/biopsy attempt by thin needle is sometimes helpful. Real-time ultrasound is sometimes referred to as sonofluoroscopy. By mechanical or electronic means, a cross-sectional ultrasound image is obtained in the plane beneath the transducer array. The image is instantaneous and changes immediately as the transducer array is moved, even slightly, to display the new plane. This may allow constant imaging of a mass during actual aspiration/biopsy, possibly contributing to accuracy of needle placement. Various arrangements for attaching needleholding devices to real-time units have been described, such as that of Saitoh¹⁷ for a Aloka (trade name) unit.

Because of its cross-sectional imaging and high resolution, CT body scanning has been shown by Ferrucci and Wittenberg¹⁸ to yield excellent results in needle placement for biopsy. One advantage is the ability to image the needle with its tip appropriately placed within a mass. The smaller the mass, the more likely that CT will provide best localization. For most masses, however, ultrasound (or other techniques including palpation) is preferred due to consideration of cost, speed and radiation.¹⁹

BIOLOGICAL EFFECTS

Those of us using ultrasound in medicine have had an initial and continuing concern about the possibility of adverse somatic or genetic effects of ultrasound on our patients. If only because of the fact that most diagnostic ultrasound is performed in the radiology department, the unfortunate early experience with radium and x-radiation provide a comparison. The unrestricted use of ionizing radiation before its dangers were appreciated and countered produced long-term effects which would be unacceptable for newly introduced diagnostic techniques today. Consequently, extensive literature on the biologic effects of ultrasound has accumulated over the last 30 years.

Past results have been reassuring. We have been able to tell our patients that there have been no demonstrated significant biologic effects (in mammalian tissue exposed to ultrasound intensities below 100 mW/cm² in the low megahertz frequency range). This conclusion had been recently reached by the Bioeffects Committee of the American Institute of Ultrasound in Medicine.²⁰ Other review articles have drawn similar conclusions, especially that of Baker *et al* in 1978.²¹

Continued research may modify those conclusions, however. Of concern, for example, are re-

cently published findings by Liebeskind *et al*.²² HeLa cells in suspension were exposed for 20 to 30 minutes to an ultrasound beam with a frequency of 2.5 MHz produced by a standard diagnostic ultrasonoscope. A frequency of 2.5 MHz is typical for diagnostic purposes and, similarly, the beam was pulsed, not continuous. The average intensity of ultrasound within the suspension was calculated to be 19.6 mW/cm². The absolute intensity for the temporal average-spatial peak based on beam profile measurements was estimated at from 55.4 mW/cm² to 71.2 mW/cm², depending on location. Experimental analysis of the deoxyribonucleic acid (DNA) of the HeLa cells yielded results strongly suggestive of unwinding of the helix or single-strand break induction and changes indicating repair synthesis of DNA. In addition, an exposed mouse cell line demonstrated abnormal growth patterns and development in syngeneic mice of tumors at the site of injection of ultrasonically treated cells. The conclusion was that ultrasound in the diagnostic range appears to cause detectable effects on DNA and growth patterns of animal cells.

If these results are reproduced, they will go a long way toward overcoming the shortcomings of previous research which demonstrated adverse biologic effects of ultrasound but which used a continuous beam at intensities much higher than that used in diagnostic medicine. The above described results were obtained with a standard diagnostic machine, using a pulsed beam and "low" intensities.

These results, if reproduced, should not cause alarm. They indicate, however, that no matter how small the risk of exposure to diagnostic ultrasound, there may be a real risk. I am confident that the degree of risk of adverse side effects remains extremely small. But we must know as accurately as possible the extent of the risk so that it may be weighed against the potential benefit to be derived from performing the examination. I hope that these results further stimulate laboratory research and that long-term, large-scale epidemiologic studies are developed to establish safe standards of exposure.

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Are you an artist as well as a physician? There is an annual art exhibit sponsored by the American Physician's Art Association (APAA) for doctors who are artists.

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TERRY S. HOYT, M.D., CHARLES E. MENGEL, M.D.
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Carcinoid Tumor

CARCINOID TUMORS occur in all portions of the gastrointestinal (GI) tract or its embryonic derivations, but they are the most common neoplasm of the small intestine. Most are found at postmortem examination and usually appear benign. Some are encountered clinically and, as such, should be managed as malignant (or at least potentially malignant) tumors. Those found clinically generally fall into the following three groups.

1. In patients with acute and dramatic results of mechanical effects on the GI tract such as intussusception, obstruction, etc. and in whom an operation soon identifies the problem.
2. In patients with advanced metastases and a resultant late carcinoid syndrome that is usually diagnosed quickly.
3. By far, the largest group includes patients with:
 - a. Early, but generally vague, elements of the carcinoid syndrome.
 - b. Specific gastrointestinal events such as rectal bleeding.
 - c. Seemingly vague abdominal complaints.

It is with these patients (3a, b, c) that a definitive diagnosis may be delayed, the proper diagnostic procedures not carried out, or subtle abnormalities overlooked.

This report briefly describes the clinical features of three patients who illustrated the spectrum of this last group and emphasizes certain radiographic features in each case.

CASE REPORTS

Case #1 A 39-year-old man entered the hospital for evaluation of proctitis and diarrhea of several months duration. A persistent mass in the distal small bowel (Fig. 1) was noted on the barium enema. Surgical removal confirmed the suspicion of a carcinoid tumor. There was no evidence of metastatic disease. Urinary 5-HIAA levels were not obtained.

Case #2 A 60-year-old man with a three-year history of diarrhea complained of rectal bleeding for one

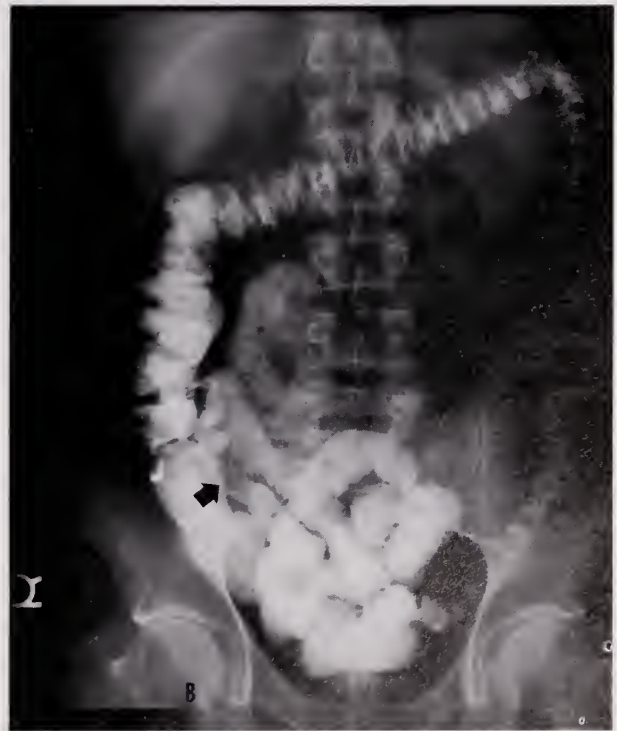


Fig. 1 Case #1. (A) Filling defect in the terminal ilius (arrow). Note absence of kinking. (B) Post-evacuation film shows persistence of the mass in the terminal ileum (arrow).



Fig. 2 Case #2. (A) Cecal mass (arrows) in patient with elements of the carcinoid spectrum and elevated 5-HIAA. (B) Post-evacuation spot films show the cecal mass (arrows).

day. He denied episodic flushing or diaphoresis, but he was noted to have telangiectases over the face. A barium enema revealed a mass in the cecum (Fig. 2). The urinary 5-HIAA level was greatly elevated. A biopsy specimen taken during colonoscopy showed carcinoid tumor. With a Tc-99m-sulfur scan, multiple metastases were found in the liver. At operation, a carcinoid tumor 3 cm in diameter was found arising from the ileo-cecal valve. The liver metastases were confirmed, and six of nine lymph nodes which were removed showed metastatic tumor.

Case #3 A 36-year-old man entered the hospital with a two-month history of cramping abdominal pain

which kept him awake at night. An upper-GI series revealed a duodenal ulcer. An intensive ulcer management regimen was begun, but the pain continued. He was readmitted two months later. Diarrhea had developed prior to this admission. A mass was felt in the right abdomen at the umbilical level. A small bowel series (Fig. 3) showed evidence of persistent pressure defects involving the small bowel. At operation, a constricting lesion of the small bowel with several adjacent submucosal nodules were found, along with evidence of mesenteric lymph node involvement and a hard, 7 cm diameter mass was found at the base of the mesentery. Several large tumor-like masses were also noted in the liver. Biopsy sections of all tissues were interpreted as carcinoid tumor. Following surgery, a urinary 5-HIAA level was found to be elevated.

DISCUSSION

Carcinoid tumors begin, and often remain, as small masses which may be radiographically seen as filling defects. The majority does not cause clinical problems. The usual sites of metastasis of malignant carcinoid are mesenteric lymph nodes and the liver.

The first case described illustrated the "classic appearance" of a filling defect in the terminal ileum. Although kinking was not a predominant feature in this case,¹ three of the cases presented by Banks² in the M.D. Anderson Series showed this similar type of appearance. Carcinoid tumor should thus be a primary consideration when a filling defect is noted in the terminal ileum with or without kinking. Our patient had no evidence of metastatic disease.

The second patient's tumor was not diagnosed radiographically as carcinoid but was felt to be a carcinoma of the cecum. This patient had manifestations of the carcinoid syndrome with metastases in the liver. Hajdu³ has shown that deeply invasive carcinoids and those more than 2.5 cm in diameter are usually metastatic. Eighty-five percent of the patients of his series had metastases. Fifty percent of his patients also had bone metastases. This case and the one presented by Zimmerman⁴ emphasize that carcinoid tumors can be discovered as cecal masses. This is particularly true when the tumor arises in the ileocecal valve, as in our patient, or when it arises in the appendix, its most common site.

The initial diagnosis for our third patient was peptic ulcer disease. He subsequently was found to have metastatic disease involving the small bowel. This tendency to early involvement of the small bowel, mesentery and lymph nodes provides a possible clue to differentiation of the carcinoid tumor preoperatively. Our case illustrated

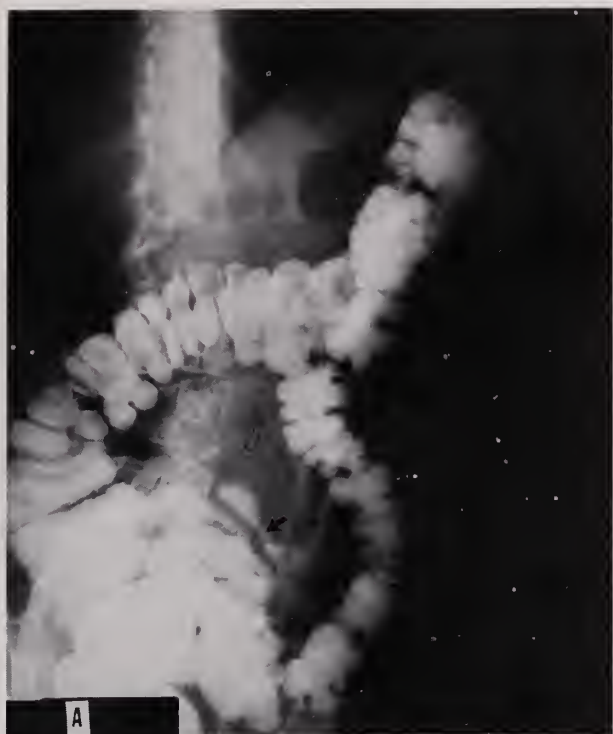


Fig. 3 Case #3. (A) Oblique view shows narrowing (*solid arrow*) of the small bowel and pressure effect on other small bowel loops (*open arrow*). Subsequent operation confirmed mesenteric and lymph node metastases with a large conglomerate mass at the base of the mesentery. (B) Prone-angle view again shows irregular appearance of the terminal ileum due to metastases, with angled pressure effect over the spine (*arrows*). (C) Postevacuation film with the small bowel again showing distortions and irregular appearance from mesenteric metastases.

subtle presentation of mesenteric metastases even though a mass was not seen in the bowel lumen.

Reuter and Boijesen in 1966⁵ and Boijesen, Kaude and Tylen in 1974⁶ have called attention to the angiographic findings of carcinoid involvement of the mesentery. These findings include the following:

1. A very vascular tumor with a stellate pattern in the arterial phase.
2. Narrowing of deep mesenteric arterial branches.
3. Poor-to-moderate accumulation of contrast media.
4. Nonvisualization of veins.

They found that the angiographic diagnosis cannot be made until there is mesenteric and lymph node involvement. The possibility of finding calcifications in the tumor also was emphasized.

Carcinoid tumors occur frequently in the intestinal tract but usually remain asymptomatic. They

are commonly found in the ileum. They may be found during evaluation of patients for episodes of intussusception, intestinal obstruction, during appendectomy or in "routine" colonic examinations. In some patients, the carcinoid tumor is found by x-ray of the chest or during bronchoscopy or both.

Occasionally, "carcinoid syndrome" develops. The total classic syndrome includes cutaneous changes, flushing episodes, hypotension, diarrhea, hepatomegaly, episodes of bronchospasm and fibrotic endocardial lesions. The majority of patients, however, do not have all of these features, particularly early in the course of their illness. Thus, patients may be encountered in all stages of the syndrome, depending on the time of diagnosis.

In almost all circumstances, the syndrome does not develop until the hepatic metastases have occurred. However, this is not the case when the syndrome is produced by a gonadal or bronchial primary tumor. Most patients have chemical evidence of niacin deficiency and symptoms of clinical pellagra will develop in a few. The pellagra picture occurs from a combination of decreased food intake and a major shunting of tryptophane away from the pathway for the endogenous production of niacin.

The course of carcinoid tumors and development of the carcinoid syndrome is extremely variable. Not all carcinoids metastasize and most that do metastasize do not produce the syndrome. Even among patients with carcinoids which are metastatic to the liver and which produce symptoms, survival from five to ten years is not uncommon and survival of 20 to 25 years has been reported.

Except for the obvious cases or those discovered during surgical emergencies, only a high index of suspicion, the ordering of proper diagnostic tests and careful scrutiny of diagnostic results including x-rays will provide the proper diagnosis.

The approach to management of the carcinoid syndrome must be individualized to the special features presented by the patient. The general principles of good patient care and control of metabolic symptoms by a variety of agents is critical for the maintenance of a reasonable quality of life.

Without question, early resection of the primary tumor is the preferred treatment of the disease. Once metastases have occurred, however, there is no evidence that removal of the primary tumor will influence the natural course of the illness. At times, surgery is unusually dangerous in these patients.

Although malignant carcinoid tumors are usually resistant to radiotherapy, it may be of great help for relief of pain of bone metastases. We have been particularly impressed with this beneficial

Carcinoid tumors are common in the gastrointestinal tract and, especially, the small intestine. They are discovered in a variety of clinical circumstances. The diagnosis is frequently unsuspected and not often specifically suggested by the radiologist. Three case reports illustrate a spectrum of presentations of this tumor and the radiographic features.

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effect in patients with rapidly growing tumors. Benefit occurs more frequently in younger patients. Our present approach is that anti-tumor chemotherapy should be initiated only when there is evidence of rapidly advancing anatomic spread of the tumor.

SUMMARY

Although the carcinoid tumor is the most common primary neoplasm of the small bowel, its radiographic detection seems relatively uncommon.

Familiarity with this tumor and its tendency to mesenteric involvement should arouse a radiologist's suspicion when masses are seen in the terminal ileum, the appendix or the area of the ileocecal valve. This can lead to earlier detection of the tumor by use of blood tests for elevation of 5-HIAA and angiography. The presence of calcification may also be useful in suggesting the diagnosis.

The radiologist also should be alert to the high probability of multiple tumors and to the high association with other primary cancers.

Clinical experience with the various manifestations of the carcinoid syndrome can also alert the examiner to the diagnosis.

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Pancreatic Pseudocysts

Case Reports

PSEUDOCYST FORMATION is a potential complication of both acute and chronic pancreatitis. Pancreatic pseudocysts are relatively uncommon in any individual surgical practice. Consequently, their diagnosis and management are usually based on limited experience with this problem. Three patients with pancreatic pseudocysts have been recently treated at St. Luke's Hospital and are presented to illustrate current diagnostic and therapeutic techniques.

CASE REPORTS

Case #1 A 66-year-old white man was admitted on Nov. 13, 1978 following the sudden onset of colicky upper abdominal pain and nausea. He denied recent alcohol intake. Abdominal tenderness was generalized and there was no palpable mass. The white blood cell count was 12,100 cells/mm³, hemoglobin value, 10.8 gm/100 ml; hematocrit, 32%; bilirubin 0.8 mg/100 ml and serum amylase level, 25 IU/liter (normal range 5-81). A flat plate of the abdomen showed no abnormalities.

The provisional diagnosis was acute cholecystitis. Infusion tomography failed to demonstrate the gallbladder, but a subsequent abdominal sonogram revealed a mass in the left upper quadrant. An upper gastrointestinal (GI) series showed a mass in the region of the pancreas which displaced the stomach anteriorly and superiorly (Fig. 1). Computerized tomography of the abdomen confirmed the presence of a cyst in the pancreas. The patient's abdominal pain improved somewhat, but he was able to tolerate only a limited oral intake. At surgery on November 27, a mature pseudocyst of the pancreas was found and pseudocystgastrostomy was performed. The patient did well postoperatively and was discharged on the 11th postoperative day.

This case illustrates a pancreatic pseudocyst following abdominal pain of unknown cause. Although the patient denied any other episodes of similar abdominal pain and had no history of biliary tract disease or alcohol abuse, it is possible that he had a subacute episode of pancreatitis at an earlier time. There were no palpable gallstones. During the acute attack of pain, the patient's

serum amylase level was normal as is known to occur in about 10% of cases of acute pancreatitis. The absence of a rising amylase, however, could reflect a low grade inflammatory reaction exacerbated by the presence of the pseudocyst. In this case, the correct diagnosis was established by abdominal sonography, an upper GI series and computerized axial tomography, and the patient was successfully treated by pseudocystgastrostomy drainage.

Case #2 A 33-year-old white man came to the emergency room on Aug. 31, 1978. He complained of epigastric pain following blunt abdominal trauma which occurred in the course of a fight. Initially, he was shocky but responded quickly to intravenous fluids. Abdominal examination revealed epigastric tender-



Fig. 1 Upper GI series showing a mass in the region of the pancreas anteriorly and superiorly displacing the stomach.

Pancreatic pseudocyst is an uncommon problem in any individual surgical practice. This report presents three case reports of pancreatic pseudocyst and reviews the medical literature of the diagnosis and management of this problem.

The authors are from St. Luke's Hospital where Dr. Sinning is a second-year resident in general surgery, Dr. Reynolds is a gastroenterologist and Dr. Koontz is a general surgeon and program director for the surgical residency program.

ness with guarding. His hemoglobin was 15.2 gm/dl, hematocrit 44%, white count 11,200 cells/mm³ and serum amylase 146 international units/liter (normal range 5-81). Results of a flat plate of the abdomen, liver-spleen scan and intravenous pyelogram were normal.

On September 1, the serum amylase level was 455 and the abdominal examination remained unchanged. On September 4, the patient's temperature rose to 101 F. An upper-GI series showed indentation of the proximal aspect of the duodenum. Abdominal sonography showed no enlargement of the pancreas and was considered normal. The patient remained intermittently febrile while his epigastric pain and tenderness continued. The pain became worse with eating. Serum amylase levels also rose as the patient was allowed to eat and vomiting ensued. Consequently, a nasogastric tube was passed and total parenteral alimentation was started on September 9. A repeat abdominal sonogram on September 12 showed a cystic structure in the left upper quadrant. This was thought to be a pancreatic pseudocyst (Fig. 2).

The patient was given total parenteral alimentation for the next two weeks and improved. A repeat upper GI series on September 26 showed anterior displacement of the stomach and duodenum (Fig. 3). The pseudocyst was internally drained on October 2 (five weeks post-trauma) by pseudocystgastrostomy. An upper-GI series one week postoperatively showed no retrogastric mass and no barium flow into the pseudocyst. He was discharged on the 11th postoperative day.

This case demonstrates a pancreatic pseudocyst which developed as a complication of traumatic pancreatitis. The patient's illness was marked by the continued exacerbation of his symptoms and rising amylase level while on oral intake. In order to put the GI tract at rest and allow the pseudocyst sufficient time to mature before surgical intervention, the patient was given nothing by mouth and was treated with total parenteral alimentation for a period of one month. Thus, a good nutritional status was maintained in preparation for definitive surgical treatment.

Case #3 A 52-year-old white man was admitted to the hospital on Oct. 4, 1978 with nausea and vomiting. He had been discharged the previous week after spending approximately one month in the intensive care unit for acute hemorrhagic pancreatitis following an alcoholic binge. The patient had developed a large pancreatic pseudocyst at that time which had not changed in size on serial abdominal sonograms.

Interval elective drainage of the pseudocyst was planned, but nausea and vomiting recurred and it was necessary to re-admit him. Abdominal examination at this time revealed a firm epigastric mass measuring 40 cm x 25 cm. Laboratory studies disclosed the following values: hemoglobin, 13.6 gm/100 ml; hematocrit, 40%;

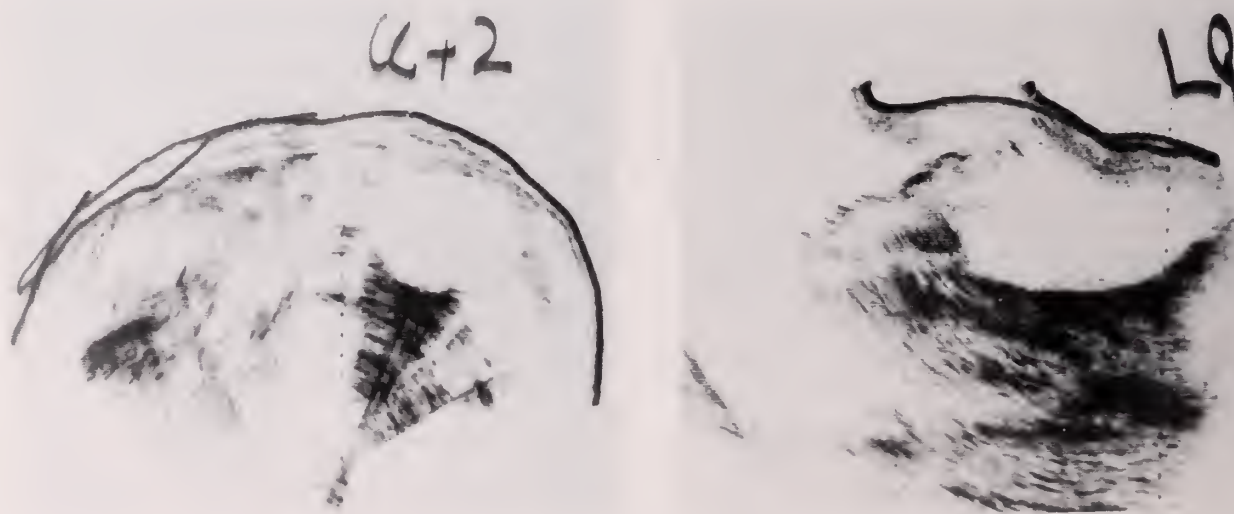


Fig. 2 Abdominal sonogram with (left) transverse and (right) longitudinal sections showing a cystic structure in the left upper quadrant.

white blood cell count, 12,800 cells/mm³; and serum amylase, 200 IU/liter (normal range 5-81). A chest x-ray was normal and a flat plate of the abdomen showed a large epigastric mass. An upper GI series showed the mass causing anterior displacement of the stomach and widening of the duodenal loop (Fig. 4). An abdominal sonogram showed increasing size of the pseudocyst compared to studies during the previous admission (Fig. 5).

On October 6, the gastroenterologist drained the cyst of 650cc by endoscopic transgastric needle aspiration. This initially alleviated the symptoms, but they recurred over the next two days. Consequently, transgastric endoscopic placement of a catheter into the pseudocyst was performed. Catheterization of the pseudocyst was carried out by inserting a 16-gauge needle through the posterior gastric wall into the pseudocyst with the use of the endoscope. A guidewire was then passed through the endoscope-needle assembly into the pseudocyst. The endoscope and needle were removed and an aortic arterial catheter was inserted over the guidewire leaving the catheter in place in the pseudocyst. During the following eight hours, 4,000 cc of fluid was drained with suction. At this time, the abdomen was flat and nontender and there was no palpable mass. An additional 500 cc of fluid was drained from the pseudocyst and the catheter was removed the next day.

Cultures of the pseudocyst fluid grew *E. coli* so the patient was given intravenous gentamicin and cephalothin. Throughout this period, the patient was inter-

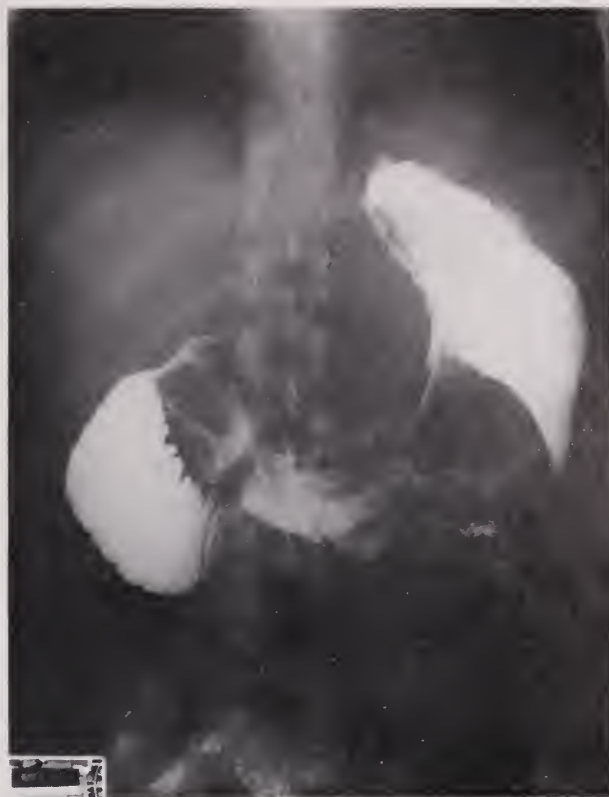


Fig. 3 Upper GI series showing indentation and anterior displacement of the stomach and duodenum.



Figure 4 Upper GI series with PA (left) and LAT (right) views showing anterior displacement of the stomach and widening of the duodenal loop.

TABLE 1
SYMPTOMS AND SIGNS

	No. of Admissions With Symptom or Sign Present	Frequency in Determinate Cases (%)
Pain	107	94
Nausea and vomiting	68	60
Anorexia	25	20
Weight Loss (over 4-5 kg)	51	47
Diarrhea	8	10
Fever	15	21
Mass	62	50
Tenderness	57	72
Ascites	22	18
Jaundice	10	8
Paroxysmal hypertension	36	49

From Sankaran and Walt: The Natural and Unnatural History of Pancreatic Pseudocysts. *Brit. J. Surg.* 62:37, 1975.

mittently febrile but was able to tolerate a liquid diet. A sonogram again showed the pseudocyst to be enlarging and pseudocystgastrostomy was performed on October 16. His postoperative recovery was slow with intermittent episodes of vomiting relieved by nasogastric suction. Peripheral alimentation with lipid and amino acid solutions was employed during this time. Ultimately, the patient improved, tolerated a regular diet and was discharged on the 16th postoperative day.

This case depicts alcohol abuse with subsequent pancreatitis complicated by pseudocyst formation. The technique of endoscopic transgastric pseudocyst drainage allowed decompression of a rapidly enlarging pseudocyst and possibly preventing rupture. It was a temporizing measure at a time when the patient was critically ill.

GENERAL DISCUSSION AND LITERATURE REVIEW

Pancreatic pseudocysts are collections of cellular debris and fluid rich in pancreatic enzymes contained by fibrous tissue rather than an epithelial cyst wall. They are caused by the disruption of the pancreatic ductal system due to trauma or an inflammatory process.

Sankaran and Walt¹ reviewed the natural history of pancreatic pseudocysts in 131 cases. Abdominal pain, nausea and vomiting were the most common symptoms. Abdominal tenderness was the most common physical sign but a palpable mass was found in only half of the patients (Table 1). In this series, 90% of pseudocysts were preceded by pancreatitis and 10% by trauma. Alcoholism was by far the most common cause of pancreatitis. Three fourths of the patients presented with an elevated amylase level, half had leukocytosis and only 13% had an elevated serum bilirubin level. Eighty-five percent of the pseudocysts were located in the body or tail while 15% were located in the head of the pancreas.

In the past, the radiological diagnosis of pancreatic pseudocysts has often been difficult. Reliance on plain films of the abdomen, barium studies and intravenous pyelography to diagnose the source of abdominal pain in patients with pancreatic pseudocysts has been reported accurate in the range of 67% to 86%. Computerized axial tomography and sonographic examinations of the abdomen have proved to be useful additions to the radiologist's armamentarium in studying patients with possible pancreatic pseudocysts. Gonzales *et al*² studied 99 patients with acute pancreatitis using ultrasonography. Fifty-two patients had scans positive for pancreatic pseudo-

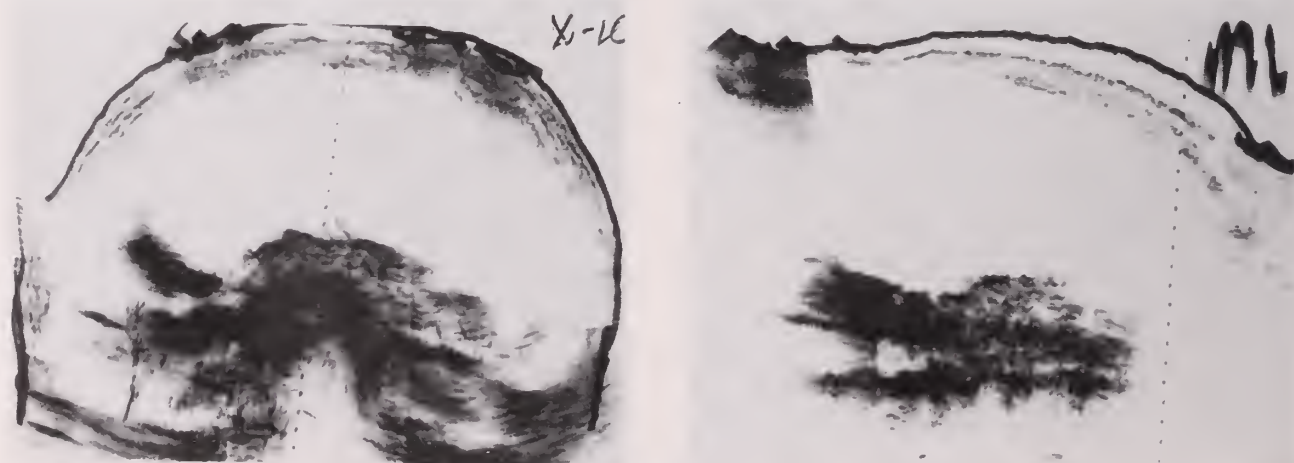


Fig. 5 Abdominal sonogram with (left) transverse and (right) longitudinal sections showing huge pancreatic pseudocyst in the upper abdomen.

cyst. Surgical or necropsy findings showed false negative and false positive rates both in the range of only 8% in this series. Stanley *et al*³, in their study on computerized tomographic evaluation of the pancreas, described nine pseudocysts diagnosed by CAT scan all of which were later confirmed. Kressel *et al*⁴ conducted a retrospective study of 12 surgically proven cases of pancreatic pseudocyst and compared ultrasonography and computerized tomography for their diagnostic accuracy. Computerized tomography correctly diagnosed six of eight uncomplicated pseudocysts and four of four infected pseudocysts. Ultrasound identified seven of eight uncomplicated and two of four infected pseudocysts. They suggested that these two methods be used in a complimentary fashion for the most accurate results. These studies and others suggest that ultrasonography and computerized tomography are the most accurate methods of diagnosis of pancreatic pseudocyst.

Endoscopic retrograde pancreatography (ERP) also may be helpful in cases of suspected pseudocyst. Anderson *et al*⁵ demonstrated a communication between a pancreatic duct and a pseudocyst in four of 12 cases. In addition, they demonstrated a total obstruction of the pancreatic duct in five of 12 cases. ERP also may provide anatomic information about the ductal system showing stenoses, dilatations and other irregularities that may be important in planning surgery.

Levin *et al*⁶ advocate routine arteriography to rule out such complicating conditions as pseudoaneurysms of pancreatic arteries, carcinoma, cystadenoma and extrahepatic portal hypertension in all patients suspected of having pancreatic pseudocysts.

At this time, ultrasonography, computerized tomography, ERP and arteriography are the most useful methods of studying pancreatic pseudocysts. We would advocate that the noninvasive, less expensive ultrasonography be used initially to be followed with computerized tomography if there is still uncertainty about the diagnosis. ERP appears to be most helpful in those patients with chronic pancreatitis in order to delineate the ductal anatomy. It also may prove useful in those cases where the results of ultrasonography and computerized tomography are equivocal. If a pseudocyst has already been confirmed, ERP should not be used because of the possibility of introducing infection. Arteriography probably should be reserved for those patients whose diagnosis has not been established by any of the above means or in those who develop hemor-

rhagic complications.

Serial evaluation of pancreatic pseudocysts by ultrasonography has shown that some will resolve without surgery⁷ and some will spontaneously drain into the GI tract.^{8, 9} Spontaneous regression, however, is not the usual course. Pollak *et al*¹⁰ reviewed 54 cases and only 3% regressed with nonoperative management. Sixty-four percent of these patients eventually required an operation and 11% died of septic complications.

We feel that asymptomatic pseudocysts may be observed and that only symptomatic or unstable pseudocysts require early operative intervention. Abdominal pain, nausea, vomiting, respiratory distress and symptoms of bowel obstruction are indications for surgery. An enlarging or infected pseudocyst also requires surgery.

Firm guidelines for timing of pseudocyst operations are lacking. Ideally, an operation should be performed only when the patient has been stabilized and the wall of the pseudocyst is sufficiently matured to accept sutures without tearing. This usually requires a period of three to six weeks. During this time, however, serious complications such as hemorrhage can occur.^{11, 12} Splenic, pancreaticoduodenal, gastroduodenal and gastropiploic arteries are the major sources of hemorrhage. Transenteric or intraperitoneal rupture of pancreatic pseudocysts is another major complication and is thought to occur in about 5%. Bradley and Clements¹³ reviewed 42 cases of transenteric rupture and found no predilection for any particular segment of intestine. Their reported mortality rate for this complication was 27%. In those patients who survive, spontaneous closure of the fistula usually occurs. Intraperitoneal rupture and hemorrhage necessitate aggressive therapy. Moazzenzadeh *et al*¹⁴ found that intraperitoneal and transenteric rupture of pseudocysts occur with equal regularity and are associated with a mortality rate of 68%. These patients require immediate exploration with drainage or excision.

A number of different approaches to operative treatment of pancreatic pseudocysts have been advocated over the years. Hastings, Nance and Becker¹⁵ reviewed a series of patients treated between 1938 and 1974, dividing them into two groups — those treated before 1962 and those treated after 1962. In the early group, 66% of patients were treated by external drainage and 34% were treated by excision or internal drainage. In the late group, only 27% were drained externally and 73% were excised or internally

drained. The recurrence rate fell from 27% in the early group to 6% in the late group. The number of patients requiring a second operation dropped from 32% to 15%.

This, and other studies, established the superiority of internal over external drainage of pancreatic pseudocysts. Cooney and Grosfeld¹⁶ reviewed 75 surgically treated cases of pancreatic pseudocyst in children. Pseudocystgastrostomy or pseudocystjejunostomy was performed in 45%, 33% were externally drained and 13% were excised. There was no significant difference in the recurrence rate, but all cases of external drainage were marked by prolonged cutaneous drainage. Pseudocystgastrostomy is the favored procedure when the pseudocyst is retrogastric and adherent to the stomach. Pseudocystjejunostomy is indicated when the pseudocyst is not adherent to the stomach wall. The procedure of choice can best be determined at the time of surgery.

Two methods of nonoperative management have been used to temporize in the instance of unstable or rapidly expanding pancreatic pseudocysts. Hancke and Pederson¹⁷ reported 14 cases of percutaneous puncture of pseudocysts using ultrasound for guidance. There were no complications and two patients had no recurrence of their pseudocysts. Transgastric endoscopic drainage has not received much attention in the literature. Rogers *et al*¹⁸ reported one successful case. As seen in our case, needle drainage with catheter placement can allow drainage for a number of days in very large pseudocysts. A potential complication is bacterial seeding of the pseudocyst as well as hemorrhage. The procedure can only be performed when the pseudocyst is adherent to the stomach wall. There has not been sufficient experience with either method to justify routine use but they may be considered as temporizing measures in selected cases.

SUMMARY

Pancreatic pseudocysts are a relatively uncommon surgical problem. The techniques of ultrasonography and computerized axial tomography have facilitated the study of these lesions. The

natural history of the condition is unpredictable. The pseudocysts may remain stable, expand rapidly or regress spontaneously. Surgical intervention remains the mainstay of treatment for symptomatic or unstable pseudocysts with internal drainage as the usual procedure of choice.

The optimum time for surgical intervention is often problematic. The complications of hemorrhage and rupture threaten while surgery is delayed to allow maturation of the pseudocyst wall. Total parenteral alimentation, percutaneous pseudocyst drainage and transgastric endoscopic drainage may be helpful in temporizing until the patient is better able to undergo major abdominal surgery.

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Reprints: Mark A. Sinning, M.D.
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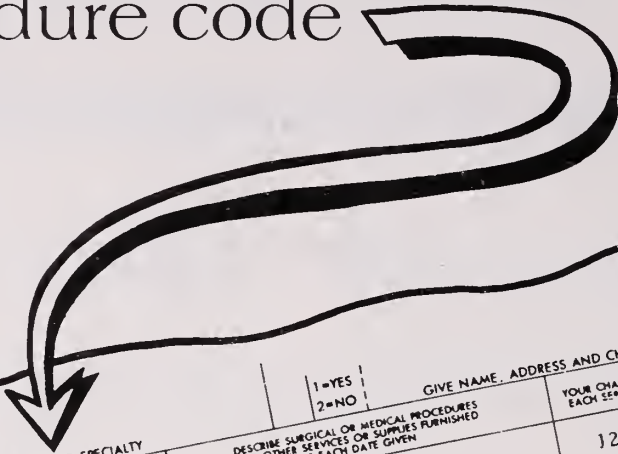
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President's Message

How Did the 'Boot Heel' Come to Be a Part of the State of Missouri?

This question was asked of me by Dr. Robert Hunter, AMA president-elect, during his recent visit to the annual session of the Missouri State Medical Association.

My initial response was "mostly" correct but carried with it the following three responses. I thought that I knew, I believed that I was right. I felt that proof of my thoughts and beliefs were on grounds too shaky to debate without a bit more research. I went back to the history books.

The so-called "Boot Heel" of Missouri, consisting of the larger portions of the counties of Dunklin and New Madrid and the county of Pemiscot, is situated between 36 degrees and 36 degrees and 30 minutes of latitude with the Mississippi River as its eastern boundry and the St. Francois River as its western boundry. This was a lowland flood plain suited best to plantation-style agriculture. Having been settled by the river folk, the area used the river for commerce and communication. The bonds of commerce were mainly with St. Louis, Cape Girardeau and New Madrid during the struggle for Missouri statehood. Mr. J. Hardeman Walker is credited for having been the large landowner who placed the "Boot Heel" in Missouri. It would probably be safer to say that Mr. Walker represented a large group of equally interested farming individuals who desired to join with Missouri rather than remain a territory with few privileges and poor representation.

We, in Missouri medicine, could do well to be firm in our research of Missouri's medical needs and to encourage all of our peers to display their interests for better representation. Rather than having one leader, each physician could take the lead in advising his or her patients as to what good medical care is and should be. They could also discuss the dangers related to abdicating "free choice" medical care and personal responsibility for shaky promises of government security.

Our present system of medical care is good and can be improved by personal effort on the part of the patient, the physician, the hospitals and by a congress which could stop SPENDING — Spending — spending.

"Please show us, Congress."



Richard V. Bradley, M.D.

Your MSMA-Sponsored Insurance Programs

These Programs are especially designed for MSMA members' protection needs.

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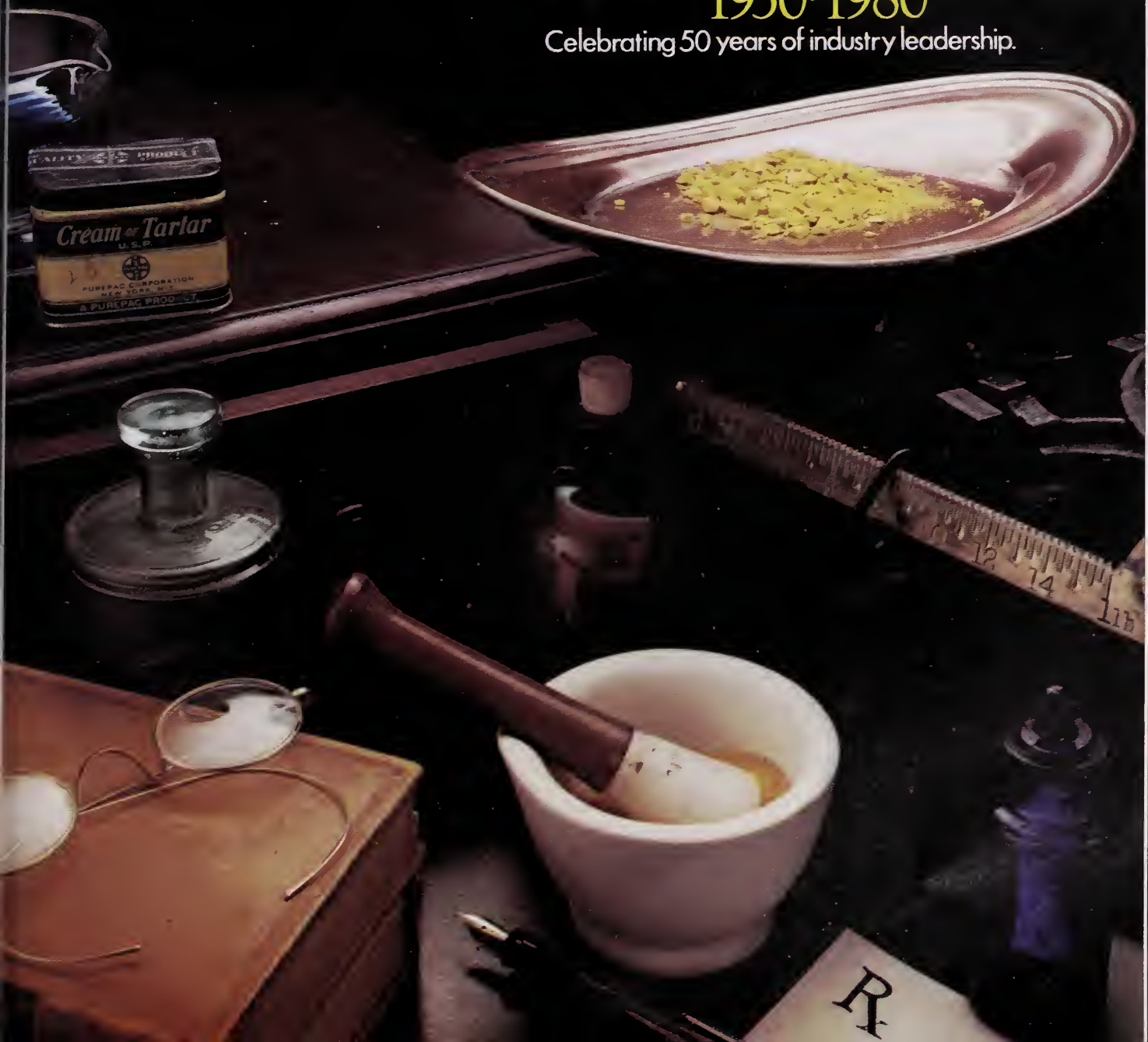
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antianxiety/antisecretory/antispasmodic
for adjunctive therapy of duodenal ulcer*
and irritable bowel syndrome*

Librax®

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addic-

tion-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression: suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug

and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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When exposure to rabies is suspected, Hyperab® Rabies Immune Globulin (Human) is the product of choice.

Hyperab® is recommended by the U.S. Public Health Service and the American College of Surgeons.

Antirabies serum of equine origin produces serum sickness in approximately 40% of adults and 15% of children. Anaphylactic shock may occur.

Hyperab®, the only rabies immune globulin of human origin virtually eliminates these hazards. No serious side effects have been reported with its use.

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See next page for brief summary of
prescribing information

Hyperab[®] RABIES IMMUNE GLOBULIN (HUMAN)

DESCRIPTION

Rabies Immune Globulin (Human)—Hyperab[®] is a sterile solution of antirabies gamma globulin (IgG) concentrated by cold alcohol fractionation from plasma of donors hyperimmunized with rabies vaccine. Hyperab[®] globulin is a 16.5% $\pm$ 1.5 solution of gamma globulin from venous blood in 0.3M glycine, preserved with 1:10,000 Thimerosal (a mercury derivative). Its pH is adjusted with sodium carbonate. The product is standardized against USA Standard Antirabies Serum. The USA unit of potency is equivalent to the International Unit (IU) for rabies antibody.

This product is prepared from human venous plasma. Each individual unit of plasma has been found nonreactive for hepatitis B surface antigen using the radioimmunoassay method of counter-electrophoresis.

INDICATIONS

Treatment of rabies, once clinical disease becomes apparent, is rarely if ever successful. Rabies vaccine (duck-embryo origin, Lilly Laboratories) with or without Rabies Immune Globulin (Human)—Hyperab[®] should, therefore, be given to all persons suspected of exposure to rabies, particularly to severe exposure. Whenever possible, Hyperab[®] globulin should be injected as promptly as possible after exposure. If initiation of treatment is delayed for any reason, however, Rabies Immune Globulin (Human) should be given just the same, regardless of the interval between exposure and treatment.

Rabies virus is usually transmitted by the bite of a rabid animal, but can occasionally penetrate abraded skin with the saliva of infected animals. Progress of the virus after exposure is believed to follow a neural pathway, and the time between exposure and clinical rabies is a function of the proximity of the bite (or abrasion) to the central nervous system and the dose of virus injected. The incubation is usually 2 to 6 weeks, but can be longer. After severe bites about the head and neck, it may be as short as 10 days.

After initiation of the vaccine series, it takes 2 weeks or longer for development of immunity to rabies. Since most vaccine failures have occurred in cases of severe exposure, the value of immediate immunization with preformed rabies antibody cannot be over-emphasized.

Recommendations for use of passive and/or active immunization after exposure to an animal suspected of having rabies were detailed by WHO, and by the US Public Health Service Advisory Committee on Immunization Practices (ACIP).

INJECTION PROCEDURE

A portion of the Hyperab[®] globulin dose should be used to infiltrate the wound. The rest is injected intramuscularly.

CONTRAINDICATIONS

Rabies Immune Globulin (Human)—Hyperab[®] is contraindicated in repeated doses, once vaccine treatment has been initiated. Repeating the dose may bring about interference with full expression of active immunity expected from the vaccine. Hyperab[®] globulin is also contraindicated in individuals who are known to have an allergic response to gamma globulin or thimerosal.

PRECAUTIONS

NEVER ADMINISTER Hyperab[®] globulin INTRAVENOUSLY.

ADVERSE REACTIONS

Slight soreness at the site of injection, and slight temperature elevation, may be noted at times. Sensitization to repeated injections of human globulin is extremely rare.

In the course of routine injections of a large number of persons with human gamma globulin, there have been a few isolated occurrences of angioneurotic edema, nephrotic syndrome, and anaphylactic shock after injection. Because of their rarity, it is difficult to determine whether such reactions are incidental, or causally related to the gamma globulin.

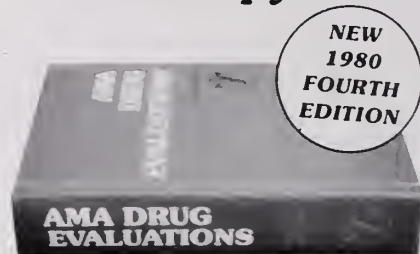
No instances of transmission of hepatitis B (homologous serum jaundice) have been reported from the use of human gamma globulin prepared by the fractionation methods employed by Cutter Laboratories, Inc.

HOW SUPPLIED

Rabies Immune Globulin (Human)—Hyperab[®] is packaged in 2-ml and 10-ml vials with a potency of 150 International Units per ml (IU/ml). The 2-ml vial contains a total of 300 IU which is sufficient for a child weighing 15 kg (33 lb). The 10-ml vial contains a total of 1500 IU which is sufficient for an adult weighing 75 kg (165 lb).

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MSMA Auxiliary

Go Ahead and Try

Several years ago, I attended a church workshop at which each participant was asked to draw her personal life crest. A shield-type pattern outline was divided into sections for the important aspects of one's life. Then each one was asked to write across the crest her personal life motto. The motto I created for myself is "Go Ahead and Try." Many times, I have been asked to do jobs for which I felt inadequate, but I have often used this motto to accept the responsibility and give it my best effort.

I approach this year as president of the Missouri State Medical Association Auxiliary with a deep sense of honor at being selected, awe of the responsibility and feelings of incompetency for the task but, also, the willingness to accept the challenge of the opportunity.

My husband, Don, has always been supportive of my activities, so this really is a team effort as I travel around the state. We have three sons who are the real workers to keep the home fires burning (and food on the table!). Steve is a freshman at MU, Mark is a sophomore in high school and John is an eighth grader. They are all a great help to me every day.

Missouri county medical society auxiliaries have many projects and activities which contribute to the better health of their communities. The AMA Auxiliary offers many services to county auxiliaries via program materials, project information, training opportunities and membership services. As the state auxiliary between these two, we can offer assistance and help communications in both directions.

It is my hope that in this year, we will be able to work together to serve the people of Missouri and to help the MSMA. I hope many more individuals across the state will join us and say, "Let's Go Ahead and Try!"



Mrs. Donald A. Fakhoury
President

Continuing Education Coming Events

Missouri Chapter

American College of Surgeons, Inc.
2112 S. Vale, Springfield 65807
(417) 882-7390

Contact: Linda Wheelen, Executive Secretary

June 13-14 Annual Professional Meeting
(Rock Lane Lodge, Branson)

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

June 5-6 Symposium on Physical Fitness
(Crown Center Hotel)

Aug. 15-17 The Long Weekend: Endocrinology
(Tan-Tar-A, Osage Beach)

Oct. 30-

Nov. 1 Annual Fall Clinical Conference —
K.C. Southwest Clinical Society
(Alameda Plaza Hotel)

Dec. 4-6 The Heart 1980
(Alameda Plaza Hotel)

St. Luke's Hospital of Kansas City

Wornall Rd. at 44th, Kansas City 64111
(816) 932-2000

Contact: Gail Williams

June 9-10 Neurology and Aphasia Seminar

Menorah Medical Center

4949 Rockhill Rd., Kansas City 64110
(816) 276-8000

Every Wed.

& Fri. 3:00 PM — Basic Sciences to Surgery
Seminar
4:00 PM — Surgical Rounds

Contact: Erich W. Pollak, M.D., Director of Surgical Education

First & Third

Saturdays 9:00 AM — Surgical Techniques Seminar
9:45 AM — Morbidity and Mortality Conference
10:30 AM — Surgical Grand Rounds

Every Tues. 9:00 AM — Medicine Staff Conference
(Except second Tuesday of each month)

Contact: David S. Sneed, M.D., Director of Medical Education

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

Washington University School of Medicine Continuing Medical Education

Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673

Contact: Office of CME

Nov. 14-16 Seventh Annual Symposium: Anesthesia and the Geriatric Patient

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

June 4 Chronic Obstructive Pulmonary Disease

Aug. 6 Rheumatic Heart Disease

University of Missouri School of Medicine Office of Continuing Education

M-240 Medical Center, Columbia 65212
(314) 882-2256

Contact: William D. Bradshaw, M.D.

June 2-3 Sixth International Symposium on Intestinal Microecology

June 21-22 The Emergency Patient
(Kirksville)

Aug. 1-2 Third Annual Missouri Sports Medicine Symposium

Aug. 2-3 The Emergency Patient
(Cape Girardeau)

Aug. 10-11 Third Annual Workshop in Soft Tissue Surgery

Aug. 7-8 Third Annual Workshop in Soft Tissue Surgery

Sept. 6-7 The Emergency Patient
(Branson)

Sept. 12-13 Hypertension Conference
(Tan-Tar-A, Osage Beach)

Sept. 19-20 Annual Plastic Surgery Symposium for the Primary Physician

Sept. 26-27 Annual Meeting of the Missouri Perinatal Association

Oct. 3-4 Second Annual Clinical Neurology Conference

Oct. 16-18 Second Annual Autumn Rheumatology Symposium

Oct. 29-31 Medical Ethics Symposium

Nov. 7-8 21st Annual M.D. Day

Nov. 13-14 The Physician and the Infection Control Committee



MSMA Members Receive Physician's Recognition Award

Fifty-seven MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period Jan. 17-Feb. 29, 1980.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in *MISSOURI MEDICINE* as they are received from the AMA.

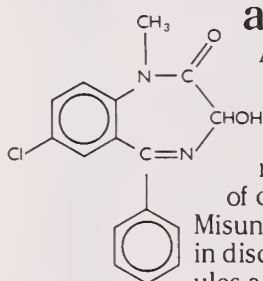
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Aspects of Management

What to tell your patients when you prescribe Valium® (diazepam/Roche)

Survey shows significant correlation between comprehension and compliance



A study of compliance patterns reveals that more than 6 out of 10 patients made errors in self-administration of prescribed medication, largely due to lack of comprehension.*

Misunderstanding of directions resulted in discrepancies in dosage schedules as well as in length of therapy.

Since evidence suggests that expanded verbal instructions may encourage compliance, the patient receiving Valium can benefit from your explanation of the dosage regimen, what response to expect from therapy and when to expect it.

What Valium (diazepam/Roche) can do

Your patients should know that 1) you are prescribing Valium as an adjunct to an overall program for the treatment of anxiety, and 2) Valium is given to relieve the symptoms of excessive anxiety and psychic tension while you help the patient to explore and deal with the underlying cause of his psychic tension.

Patients often interpret manifestations of anxiety, such as palpitations, hyperventilation, fatigue and muscle tension, as symptoms of a serious disease. However, when they

learn that these symptoms can be relieved by Valium therapy, patients can more readily understand the psychosomatic origin of their symptoms and to accept the nonpharmacologic measures you may recommend.

The time you devote to these explanations can be a therapeutic measure in itself. Most anxious patients respond to and benefit from a frank discussion with an objective, sympathetic professional.

At the start of treatment, establishing therapeutic goals helps the patient to learn *what* to expect and *when* to expect it. Patients should also be informed that the medication will be gradually reduced and discontinued upon attainment of the therapeutic goal.

Tapering of dosage is rarely necessary in short-term therapy, but when consistently higher doses are used for extended periods, patients should know that the gradual reduction of medication will be implemented in order to avoid sudden recurrence of symptoms or possible withdrawal symptoms.

Such recurrence is unlikely when the causes of the anxiety have been worked out satisfactorily within your overall treatment program.

What Valium (diazepam/Roche) can't do

It should be emphasized that there is no "magic" in any antianxiety tablet; that medication is not prescribed as a problem solver. Instead, Valium is being prescribed as a *temporary measure to relieve symptoms* generated by excessive anxiety and psychic tension.



* Boyd JR, et al: *Am J Hosp Pharm* 31: 485-491, May 1974

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders, psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms, or agitation, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spastically caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy). The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma. may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders,

possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics,

Practical pointers on taking antianxiety medications

do's Patients should be instructed to keep to their dosage schedule exactly as prescribed. If they miss a dose, they should not try to make it up by taking two doses the next time. Ask them to contact you promptly if they experience worrisome side effects.

Explain that drowsiness is a common reaction to almost all calming agents, but that it usually subsides in a few days. Urge the patient to contact you for a possible dosage adjustment if drowsiness or other reactions persist.

Just as you request a complete list of all medications the patient is taking, suggest that this list be given to any other physician treating her/him.

Like all medicines, Valium should be kept out of reach of children and young people. Old or unused medication should be discarded.

and don'ts Since drowsiness is an occasional problem, patients should be advised against driving or operating hazardous machinery until they see how the medication affects them. They should also know that tranquilizers increase the effects of alcoholic beverages, which should therefore be avoided. Also, warn patients against simultaneous use of drugs that depress the central nervous system, particularly sedative hypnotics.

Patients should be aware of the importance of not sharing their medications with friends and neighbors; they should know that what you have prescribed for them may be contraindicated for others.

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Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.



NEWS

From the Medical Schools

UNIVERSITY OF MISSOURI-COLUMBIA

Dr. M. Pinson Neal, Jr., a physician-educator in Richmond, Va., is the 23rd recipient of the Citation of Merit in Medicine presented by the



Dr. Neal

University of Missouri-Columbia Alumni Association and the School of Medicine. The 1980 presentation was made at the UMC Medical Alumni Luncheon which was held in conjunction with the MSMA 122nd Annual Session at Crown Center Hotel in Kansas City on April 18.

Born in Columbia, Dr. Neal received his A.B. degree from the University of Missouri in 1949 and his B.S. in Medicine in 1951. He earned his M.D. degree from the University of Tennessee in 1953 and spent a year of internship at the Medical College of Virginia Hospitals in Richmond. He then moved to the University of Wisconsin in Madison where he completed his residency in radiology in 1957.

He began his teaching career at the University of Wisconsin and became director of the Department of Radiology, Central Wisconsin Colony in Madison in 1959. He held the position four years.

In 1963, Dr. Neal moved to the Medical College of Virginia Commonwealth University as an associate professor. He became director of postgraduate education in the Department of Radiology at the college. In 1965, he was appointed chairman of the Division of Diagnostic Radiology. In 1971, he was appointed interim dean of the School of Medicine and then became Vice-President for Health Sciences. Two years later, he was appointed provost for the Health Sciences Campus, a post he held five years.

Currently, Dr. Neal is president of the Virginia Council on Health and Medical Care. He is active in numerous scientific, honorary and professional

societies and serves on the editorial Boards of *Current Concepts in Gastroenterology* and the *Journal of the Southern Medical Association*.

Dr. Neal's father, a graduate of the Medical College of Virginia, was well known to almost 50 classes of Missouri University medical students as a professor of pathology.

William C. Allen, M.D., M.P.H., is the recipient of the W. Scott Johnson Award given annually by the Missouri Public Health Association (MPHA) to a member who has made outstanding contributions to public health in the state.

Professor of family and community medicine, Dr. Allen has devoted his entire medical career to public health and preventive medicine in Missouri, the citation states. For several years, he has been responsible for the medical students' preceptorship program in family medicine, placing the students for training with doctors in small communities in the state.

Dr. Allen has held offices in many professional and voluntary health groups. Dr. Carl Marienfeld, 1978 award winner, presented the award to Dr. Allen at the MPHA annual meeting this spring.

Five physicians on the staff of the UMC Hospital and Clinics are listed among "The Best Doctors in the United States," a recently published "guide to the finest specialists, hospitals and health centers."

Author John Pekkanen, a Washington, D. C. medical writer, asked 535 highly respected American physicians, "If you or a member of your family were ill with a problem in your own specialty, who would you go to for treatment?"

The five UMC doctors chosen by their peers across the nation who responded to the question are Dr. Howard Reber, specialist in gastrointestinal surgery; Dr. Gordon Sharp, rheumatologist with special expertise in lupus; Dr. Karl Nolph, nephrologist who is internationally known for his work in peritoneal dialysis; Dr. Giulio Barbero, pediatrician who heads the research time in cystic fibrosis and is also an expert in pediatric gastroenterology; and Dr. Charles E. Mengel, hematologist with a special interest in anemia.

UNIVERSITY OF MISSOURI-KANSAS CITY

Nathan J. Stark, the Undersecretary of HEW, received an honorary degree from the University of Missouri-Kansas City (UMKC) at graduation exercises on May 10. Mr. Stark is this year's Dorothy Lee Ross Lecturer.

The University is honoring Mr. Stark for his long service to UMKC, particularly the School of Medicine, and for his dedication to the development of many activities in Kansas City. Before moving to the University of Pittsburgh in 1974 to become vice-chancellor for health professions, he served on the Kansas City Metropolitan Hospital Planning Council for ten years. He also was a member of the Advisory Board of the Kansas City General Hospital Fund and president of the Kansas City General Hospital and Medical Center Corporation. While serving in these capacities, Mr. Stark was chairman of the board and chief executive officer of the Crown Center Redevelopment Corporation.

Mr. Stark and his wife attended a reception and dinner at Truman Medical Center on May 8. On May 9, he delivered the Dorothy Lee Ross Lecture and spoke at the Oath of Physicians Ceremony for graduating seniors in the UMKC Performing Arts Center.

ST. LOUIS UNIVERSITY

Francis E. O'Donnell, Jr., M.D. has been named director of the Bethesda Eye Institute and chairman of the Department of Ophthalmology at St. Louis University. The appointment was made by George Thoma, M.D., St. Louis University vice-president for the medical center, and Charles G. Schott, Jr., president of the board of directors of Bethesda General Hospital.

Now assistant chief of service of Wilmer Eye Institute at Johns Hopkins Hospital in Baltimore, Dr. O'Donnell will serve as a consultant to the St. Louis University Medical Center and Bethesda General Hospital for the remainder of 1980. He will assume full-time duties in St. Louis on Jan. 1, 1981.

An agreement to develop a major center for the medical and surgical treatment of eye diseases was announced by the cooperating institutions two years ago. The eye institute also will serve as the principal teaching and research base for the Department of Ophthalmology of the School of Medicine. Faculty development for professional

services, teaching and research programs of the institute will be the responsibility of the university's Department of Ophthalmology. The Bethesda Eye Institute will be responsible for the development of the physical facilities and equipment and the hospital components of institute operations.

A major goal of the Bethesda Eye Institute will be to establish a research center for the study of retinitis pigmentosa and other retinal degenerations. The center will be one of only about eight in the nation and the first to serve the St. Louis area with this type of research.

Robert Olson, M.D., Ph.D., who is Alice A. Doisy Professor of biochemistry and chairman of the department at St. Louis University School of Medicine, has been named president-elect of the American Institute of Nutrition (AIN).

The AIN is an academic association for nutrition researchers in agricultural colleges, medical schools, research institutes and government and industrial laboratories. Dr. Olson is a past-president of the American Society of Clinical Nutrition, the clinical wing of the AIN. The AIN also is a member of the National Nutrition Consortium Inc., a policy-forming group advising governmental agencies, congressional committees and other health organizations. Dr. Olson is currently chairman of the board of directors of the consortium.

Thomas Starzl, M.D., Ph.D., chairman of the Department of Surgery at the University of Colorado Medical School, delivered the 35th annual Hannau Loeb Lecture at the St. Louis University Medical Center. He discussed "Recent Developments in Organ Transplantation."

Dr. Starzl is a pioneer in the field of organ transplantation, specializing in kidney and liver transplants. The Hannau Loeb Lecture was established in honor of the late Hannau Loeb, M.D., who served as dean of the School of Medicine from 1914 to 1927.

Harry Fischer, M.D., chairman of the Department of Radiology at the University of Rochester School of Medicine, gave the Leroy Sante Memorial Lecture recently in honor of the founder of the Department of Radiology at St. Louis University School of Medicine.

The late Leroy Sante, M.D. served as professor and head of the Department of Radiology from 1919 to 1960.

Dr. Fischer's lecture was titled "More, Not Less" and centered on how overall economy can be helped by the use of radiological examinations.

In Memoriam

James L. Harwell, M.D., 2149 Sunshine, Columbus Apt. 204C, Springfield 65804; a graduate of Washington University, 1933; member of Butler-Wayne-Ripley-Carter County Medical Society; age 72; died March 6, 1980.

Edward G. Kettner, M.D., 1200 Bryant Bldg., 1102 Grand Ave., Kansas City 64106; a graduate of the University of Kansas, 1944; member of Jackson County Medical Society; age 64; died March 8, 1980.

Frederick W. Teiber, M.D., 38 Fair Oaks, St. Louis 63124; a graduate of St. Louis College, 1918; member of St. Louis Metropolitan Medical Society; age 86; died March 10, 1980.

George T. Gafney, M.D., St. Agnes Home, Manchester & Woodlawn Rd., St. Louis 63122; a graduate of St. Louis University, 1919; member of St. Louis Metropolitan Medical Society; age 85; died March 11, 1980.

Henry A. Sydow, M.D., 10 W. 6th, Fulton 65251; a graduate of the University of Nebraska, 1939; member of Callaway County Medical Society; age 66; died March 31, 1980.

Richard James Lanning, M.D., 3801 N. Central, Kansas City; a graduate of the University of Missouri School of Medicine, 1958; member of Clay County Medical Society; age 48; died April 5, 1980.

Fred Louis Kneibert, M.D., 666 Lester, P. O. Box 220, Poplar Bluff 63901; a graduate of Jefferson Medical College of Thomas Jefferson University, 1927; member of Butler-Wayne-Ripley-Carter County Medical Society; age 77; died April 8, 1980.

Daniel L. Rosenstein, M.D., 215 Kennedy Dr., Sikeston 63801; a graduate of Washington University, 1954; member of SEMO County Medical Society; age 52, died April 11, 1980.



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DIRECTIONS FOR USE—ADULTS: Before breakfast and after the evening meal, one to two rounded teaspoonfuls of Perdiem™ granules should be placed in the mouth and swallowed with a full glass of warm or cold beverage. Perdiem™ granules should not be chewed. After Perdiem™ takes effect (usually after 24 hours, but possibly not before 36-48 hours), reduce the morning and evening doses to one rounded teaspoonful. Subsequent doses should be adjusted after adequate laxation is obtained.

IN OBSTINATE CASES: Perdiem™ may be taken more frequently, up to two rounded teaspoonfuls every six hours.

FOR PATIENTS HABITUATED TO STRONG PURGATIVES: Two rounded teaspoonfuls of Perdiem™ in the morning and evening may be required along with half the usual dose of the purgative being used. The purgative should be discontinued as soon as possible and the dosage of Perdiem™ granules reduced when and if bowel tone shows lessened laxative dependence.

FOR COLOSTOMY PATIENTS: To ensure formed stools, give one to two rounded teaspoonfuls of Perdiem™ in the evening with warm liquid.

DURING PREGNANCY: Give one to two rounded teaspoonfuls each evening.

FOR CLINICAL REGULATION: For patients confined to bed, for those of inactive habits, and in the presence of cardiovascular disease where straining must be avoided, one rounded teaspoonful of Perdiem™ taken once or twice daily will provide regular bowel habits. Take with a full glass of water or beverage.

FOR CHILDREN: From age 7-11 years, give one rounded teaspoonful one to two times daily. From age 12 and older, give adult dosage.

NOTE: It is extremely important that Perdiem™ should be taken with a plentiful supply of liquid.

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in Brief

A summary of AMA, medical & health news

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THE AMA INVITED state medical associations to host an Official Family Briefing at their 1980 annual or interim meetings, in a letter to all state association presidents. This is the second year of the program. Thirty-one state associations hosted briefings in 1979. The purpose of the Official Family Briefings is to promote a private, informal exchange of information on significant health care issues between AMA officials and state association leadership. The primary state association participants last year were officers, trustees and AMA delegates and alternate delegates. The Association encouraged state association presidents to invite the broadest leadership possible to the 1980 briefings. For more information contact Office of EVP, AMA Headquarters.

MEDICAL SOCIETIES may enter physician-speakers in the 1980 AMA Medical Speakers Awards Program. Speakers must have officially represented the society in any of seven categories of speeches made at any time between January 1 and the November 15 cutoff date. Awards of \$1,000 for first place, \$500 for second place and \$250 for third place will be given to the sponsoring medical societies to aid their speakers bureaus. For more information, contact the Department of Speakers and Leadership Programs, AMA Headquarters.

AMA-ERF CHECKS totaling \$1,182,563 were sent to state medical association executive directors for distribution to medical schools as unrestricted grants. Funds for the Education and Research Foundation medical school program were contributed largely by physicians and their wives and were collected through efforts of the AMA Auxiliary.

THE AMA'S CREDIBILITY RATING with the public continues high, according to a study completed last December by the Gallup Organization, although the rating has declined slightly since a similar study was conducted in 1976. Belief in AMA communications was rated 6.6 on a

scale of one to ten, ahead of eight other professional and trade organizations and four social institutions. Only the American Dental Association with a 6.9 rating, led the AMA. In 1976, both the AMA and the ADA had 6.8 ratings. The AMA got high marks from 38% of those surveyed, medium marks from 41%, and low marks from 12%. Only 9% were unable to rate the AMA compared to an average of 22% for other trade and professional groups, indicating high public awareness of the AMA.

"STARTING YOUR PRACTICE" Workshops for physicians planning to enter private practice are held on a monthly basis at AMA Headquarters and at other nationwide locations in coordination with state and county medical societies. Sessions are limited to 27 participants, so early registration is advisable. Spouses are invited to audit. Participants already in practice will receive 15 hours of Category 1 CME credit. Registration fee is \$100 for members of AMA, state or county medical societies, and \$140 for nonmembers. Spouse's fee is \$20, payable at the door. For more information contact Department of Practice Management, AMA Headquarters.

THE BOARD OF TRUSTEES voted support for a Department of Defense plan to provide hospitalization for American casualties in case of U.S. involvement in war in a foreign country. A task force of trustees and staff will be appointed to work with John H. Moxley III, M.D., DoD assistant secretary for health affairs, on the plan known as the Civilian Military Contingency Hospital System. The system will provide for the use of about 50,000 beds in Veterans Administration and civilian hospitals. The schedule for development of the system, the officials said, calls for a selection of areas by June, agreements with hospitals by August, and first tests of the plan in the spring of 1981. It is not reasonable to ask Congress to build additional hospitals on a contingency basis, Dr. Moxley pointed out.

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New Members

Robert D. Boles, M.D., 1211 S. Glenstone, Springfield 65804, has become a member of Greene County Medical Society. Dr. Boles is a native of Oklahoma City, Okla., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1974. He specializes in general surgery.

Frederick A. Buck, D.O., 3405 N.E. Prather Rd., Kansas City 64116, has become a member of Clay County Medical Society. Dr. Buck is a native of Cameron, received his preliminary education at Missouri Western State College and his D.O. degree at Kansas City College of Osteopathic Medicine in 1974. He specializes in general surgery.

Ann E. Campbell, M.D., 4104 McGee, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Campbell is a native of Wichita, Kan., received her preliminary education at the University of Missouri-Kansas City and her M.D. degree at the University of Missouri-Kansas City in 1977. She specializes in internal medicine.

Jorge Cardenal, M.D., 9150 E. 41st Terr., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Cardenal is a native of Managua, Nicaragua, received his preliminary education at Xaverian University and his M.D. degree at Bogota University in 1969. He specializes in obstetrics and gynecology.

Arthur L. Casey, M.D., 216 S. Kingshighway Blvd., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Casey is a native of St. Louis, received his preliminary education at the University of Illinois and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in obstetrics and gynecology.

Taiyong D. Chung, M.D., Henrickson Clinic, 217 Oak, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Chung is a native of Manchuria, China, received his preliminary education at Catholic Medical School and his M.D. degree at Catholic Medical School in 1961. He specializes in surgery.

Guillermo Couchonnal, M.D., 9150 E. 41st Terr., Kansas City 64133, has become a member

of Jackson County Medical Society. Dr. Couchonnal is a native of Asuncion, Paraguay, received his preliminary education at the National College of Villarrica and his M.D. degree at the National University of Asuncion in 1970. He specializes in internal medicine.

John Albert Davidson, M.D., 5535 Delmar, St. Louis 63112, has become a member of St. Louis Metropolitan Medical Society. Dr. Davidson is a native of St. Louis, received his preliminary education at Southern Illinois University and his M.D. degree at Chicago Medical School in 1977. He specializes in internal medicine.

John W. Hatchett, M.D., M-580, University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Hatchett is a native of Guymon, Okla., received his preliminary education at Yale University and his M.D. degree at the University of Oklahoma in 1977. He specializes in general surgery.

Peter Carl Hemal, M.D., University of Missouri Medical Center, Pathology Department, Columbia 65201, has become a member of Boone County Medical Society. Dr. Hamel is a native of Iron Mountain, Mich., received his preliminary education at Wheaton College and his M.D. degree at the University of Wisconsin in 1977. He specializes in pathology.

Richard K. Jacks, D.O., St. Joseph State Hospital, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Jacks is a native of Rockville, Ind., received his preliminary education at Wheaton College and his D.O. degree at the College of Osteopathic Medicine and Surgery-Des Moines in 1967. He specializes in psychiatry.

Keith R. Kaback, M.D., 9314 Bales, Apt. 301, Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Kaback is a native of Middletown, N.Y., received his preliminary education at Colgate University and his M.D. degree at Johns Hopkins University in 1979. He specializes in internal medicine.

Stephen A. Klotz, M.D., 7437 Belinder, Shawnee Mission, Kan. 66208, has become a member of Jackson County Medical Society. Dr. Klotz is a native of Augusta, Ga., received his preliminary

education at Kansas University and his M.D. degree at Kansas University in 1974. He specializes in internal medicine.

Jay P. Marshall, II, M.D., 1034 S. Brentwood Blvd., St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Marshall is a native of Ann Arbor, Mich., received his preliminary education at DePauw University and his M.D. degree at the University of Missouri-Columbia in 1972. He specializes in internal medicine and gastroenterology.

Gordon T. Matsuda, M.D., 1100 W. 10th, Rolla 65401, has become a member of Mid-Missouri County Medical Society. Dr. Matsuda is a native of Honolulu, Hawaii, received his preliminary education at St. Mary's College and his M.D. degree at St. Louis University in 1969. He specializes in urology.

Christopher J. Moran, M.D., 2821 N. Ballas, Suite C-65, St. Louis 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Moran is a native of Detroit, Mich., received his preliminary education at the University of Notre Dame, and his M.D. degree at St. Louis University in 1974. He specializes in diagnostic radiology and neuroradiology.

Emmanuel A. Opanuga, M.D., 2601 N. Whittier, St. Louis 63113, has become a member of St. Louis Metropolitan Medical Society. Dr. Opanuga is a native of Ikenne-Remo, Nigeria, received his preliminary education at the Federal School of Science and his M.D. degree at the University of Ibadan in 1972. He specializes in general surgery.

Alan E. Organ, M.D., Suite 311, 601 E. 63rd, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Organ is a native of Los Angeles, Calif., received his preliminary education at Kansas University and his M.D. degree at the University of Missouri-Columbia in 1976. He specializes in pediatrics.

Lester A. Owens, D.O., Methodist Medical Center, Dept. of Rehabilitation, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Owens is a native of Bradford, Pa., received his preliminary education at the State University of New York and his D.O. degree at the College of Osteopathic Medicine and Surgery-Des Moines in 1975. He specializes in physical medicine and rehabilitation.

Gary J. Parker, M.D., P.O. Box 38, Ellington 63638, has become a member of Mineral Area

Medical Society. Dr. Parker is a native of Salem, received his preliminary education at Lincoln University and his M.D. degree at the University of Missouri-Columbia in 1973. He specializes in internal medicine.

Seth Paskon, M.D., 301 W. 3rd & Jackson, Salem 65560, has become a member of Mid-Missouri County Medical Society. Dr. Paskon is a native of Thailand, received his preliminary education at Chulalongkorn University and his M.D. degree at Siriraj Medical School in 1966. He specializes in internal medicine and pediatrics.

Mui D. Pho, M.D., 4930 Lindall, St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Pho is a native of Viet Nam, received his preliminary education at the University of Saigon and his M.D. degree at the University of Saigon in 1967. He specializes in emergency medicine.

Ranga V. Reddy, M.D., 1130 Beau Jardin Ct., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Reddy is a native of India, received his preliminary education at S.V.H.S. School and his M.D. degree at Kurnool Medical College in 1975. He specializes in anesthesiology.

John F. Reinisch, M.D., University of Missouri Medical Center, Columbia 65202, has become a member of Boone County Medical Society. Dr. Reinisch is a native of Holyoke, Maine, received his preliminary education at Dartmouth College and his M.D. degree at Harvard University in 1970. He specializes in plastic surgery.

Marcos M. Reis, M.D., 1755 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Reis is a native of Brazil, received his preliminary education at Universidade Federaldo and his M.D. degree at Universidade Federaldo Rio de Janeiro in 1971. He specializes in internal medicine.

Kathleen G. Rice, M.D., 114 Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Rice is a native of Denver, Colo., received her preliminary education at the University of Oklahoma and her M.D. degree at Baylor College in 1973. She specializes in pediatrics.

Beverly J. Ringenberg, M.D., St. Mary's Hospital, 6420 Clayton Rd., St. Louis 63117, has become a member of St. Louis Metropolitan Medi-

cal Society. Dr. Ringenberg is a native of St. Louis, received her preliminary education at Northwestern University and her M.D. degree at Washington University in 1976. She specializes in emergency medicine.

Lauretta Roberts, M.D., 9150 E. 41st Terr., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Roberts is a native of New York, N.Y., received her preliminary education at Western Illinois University and her M.D. degree at St. Louis University in 1975. She specializes in obstetrics and gynecology.

Abdollah A. Sabet, M.D., 901 Clayton Rd., Ballwin 63011, has become a member of St. Louis Metropolitan Medical Society. Dr. Sabet is a native of Iran, received his preliminary education at Tehran University and his M.D. degree at Tehran University in 1960. He specializes in psychiatry.

Barry L. Sampson, M.D., 522 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Sampson is a native of Milwaukee, Wis., received his preliminary education at the University of Wisconsin and his M.D. degree at Washington University in

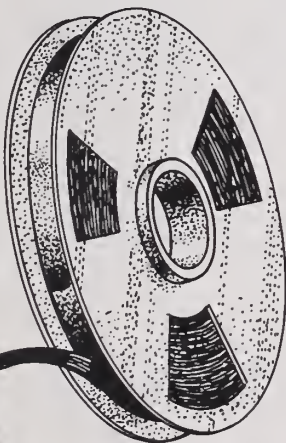
1974. He specializes in orthopedic surgery.

Bruce A. Schainker, M.D., Department of Pathology, Jewish Hospital, 216 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Schainker is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1975. He specializes in Pathology.

James A. Schell, II, M.D., St. John's Mercy Medical Center, 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Schell is a native of Jefferson City, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1979. He specializes in internal medicine.

Karen L. Segrist, M.D., 3660 Vista, St. Louis 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. Segrist is a native of St. Louis, received her preliminary education at the University of Missouri-Columbia and her M.D. degree at the University of Missouri-Columbia in 1977. She specializes in ophthalmology.

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University of Missouri-Kansas City Student Medical Society

Steven J. Badeen

Anthony Shen

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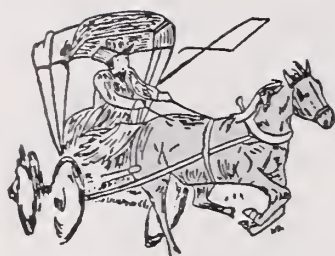
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CORNER OFFICE SUITE — 1,000 sq. ft. for rent in St. Louis University Club Tower Building. Consultation room, laboratory, business office, three treatment rooms and reception room, some carpeted, draped and panelled. August 15 approximate availability. Call Dr. James Bucy, (314) 862-6070.

VACATION at 9,000 FEET — Rocky Mt. Natl. Park. Chalet sleeps 10-12. All amenities. In area: golf, tennis, fishing, float trips, trail riding, more. Summer rates. Dr. John Douthit, 1025 Garfield, Ft. Collins, CO 80524. 303-484-6587.



Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The 83rd Annual Session of the Missouri State Medical Association was held in Joplin on April 29-May 1, 1940. Dr. Robert B. Denny, Creve Coeur, was elected president-elect. He will be installed as president at the St. Louis meeting in 1941.

Elected as vice-presidents were Dr. L. J. Schofield, Warrensburg; William J. Stewart, Columbia; and Paul W. Walker, Joplin. Dr. Walter Baumgarten of St. Louis was reappointed editor and Mr. E. H. Bartelsmeyer, St. Louis, executive secretary. Dr. Cyrus E. Burford, St. Louis, was installed as president.

Dr. E. Lee Dorsett, St. Louis, was elected president of the St. Louis Gynecological Society at its April meeting. Dr. Joseph A. Hardy, Jr., St. Louis, was elected secretary.

Joplin in Jasper County was named for Rev. Harris G. Joplin, Methodist home missionary who settled in the vicinity in 1839. Jasper County has excellent hospitals. The Freeman and St. John's hospitals are in Joplin and the McCune-Brooks Hospital is in Carthage.

The American Medical Association will hold its 91st Annual Session in New York on June 11-14. The MSMA will be represented by Drs. A. R. McComas, Sturgeon; R. Emmet Kane, St. Louis; and James R. McVay, Kansas City.

TWENTY-FIVE YEARS AGO

The 97th Annual Session of the MSMA was held on March 27-30, 1955 in the Municipal Auditorium and Hotel President in Kansas City. Carl F. Vohs, M.D., St. Louis, was elected president-elect and Victor E. Buhler, M.D., was installed as president. Other officers elected were Drs. Jerome I. Simon, St. Louis, treasurer; E. Royse Bohrer, Jefferson City, secretary (reelected); and W. S. Sewell, Springfield, chairman of the Council.

The private library of the late Robert Schlueter, M.D., has been donated to St. Louis University by his widow, according to Rev. Joseph P. Don-

nelly, S.J., director of the University libraries. A member of the faculty at the School of Medicine for more than 30 years, Dr. Schlueter was president of the St. Louis Medical Society in 1911, president of the MSMA in 1918 and president of the St. Louis Surgical Society in 1941. The collection contains important first editions of Dr. William Beaumont's "Experiments and Observations on Gastric Juices" and Greek and Latin dictionaries.

A report on the effectiveness of Salk's poliomyelitis vaccine is expected soon. If the vaccine is proved to be of value, it will be licensed soon thereafter.

TEN YEARS AGO

The 112th MSMA Annual Session was held on April 2-5, 1970 in the Muehlebach Hotel in Kansas City with 1,085 persons participating in the various events and programs. At the final meeting of the House of Delegates, Dr. Gerald L. Miller, M.D., Kansas City was named president-elect. Dr. Joseph L. Fisher of St. Joseph was installed as the 1970-1971 president succeeding Dr. Doyle C. McCraw of Bolivar. Other officers elected were vice-presidents Rolla B. Wray, Nevada; John R. Dixon, Brookfield; and C. Howe Eller, St. Louis County.

Mrs. William M. Walker of Springfield was installed as president of the MSMA Woman's Auxiliary at the 1970 annual convention held in conjunction with the MSMA Annual Session. Mrs. Frank H. Valach of St. Louis was elected president-elect.

The Missouri Chapter of the American College of Surgeons will hold its annual meeting on May 7-8 at Tan-Tar-A Resort, Osage Beach.

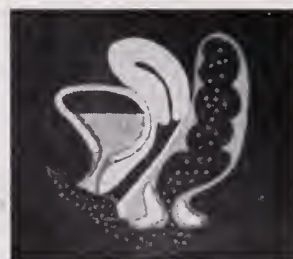
Dr. Bernard Flotte of Florissant, who has been volunteer physician to the Little Sisters of the Poor Home for 31 years, was honored by the residents of the home and by Bishop Joseph McNichols, who gave him a "good merit" medal from Pope Paul VI.

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For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.



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- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonia. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasps. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasps. (5 ml)	½ tablet
40	18	2 teasps. (10 ml)	1 tablet
60	27	3 teasps. (15 ml)	1½ tablets
80	36	4 teasps. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonia:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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3-system counterattack



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The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of

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Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has no significant effect on other normal, necessary intestinal flora.

**Bactrim fights uropathogens in the
urinary tract/vaginal tract/lower intestinal tract**

Please see reverse side for summary of product information.

Missouri Medicine

Vol. 77, No. 6

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June, 1980

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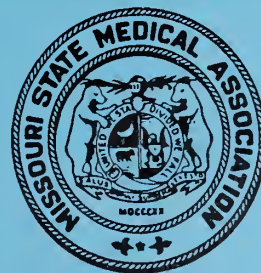
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IN MUSCULOSKELETAL DISEASE*

A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

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(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective, for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlori-

azepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Meclizol, or am-

phetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and institution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdose with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdose with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

Wyeth Laboratories
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FOR MODERATE PAIN

A therapeutic dose of acetaminophen in one tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed

WHY NOT WYGESIC®

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdosage).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgment of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see Warnings). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective, unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237 2406-2407, 1977).

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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modern anorectal comfort

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Rectal Cream with Hydrocortisone Acetate

Caution: Federal law prohibits dispensing without prescription.

Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Indications: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas and relief of local pain and discomfort following anorectal surgery.

Anusol-HC Cream is also indicated for pruritus ani.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: Symptomatic relief should not delay definitive diagnoses or treatment.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Anusol-HC is not for ophthalmic use.

Dosage and Administration: Anusol-HC Suppositories — Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at

bedtime for 3 to 6 days or until inflammation subsides. Then maintain patient comfort with regular Anusol Suppositories.

Anusol-HC Cream — Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain patient comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories — boxes of 12 (N 0047-0089-12) and boxes of 24 (N 0047-0089-24) in silver foil strips with Anusol-HC W/C printed in black.

Anusol-HC Cream — one-ounce tube (N 0047-0090-01) with plastic applicator.

Store between 59°-86° F (15°-30° C).

Full information is available on request.

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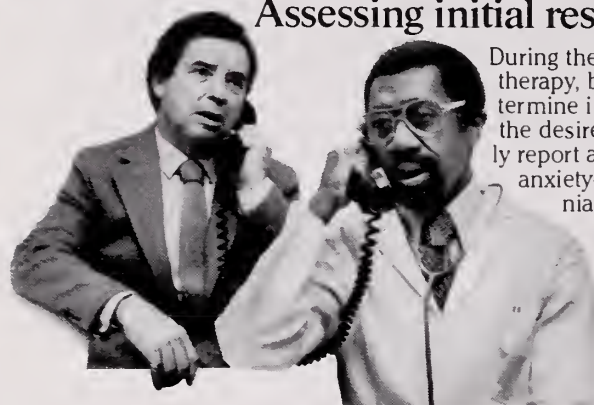
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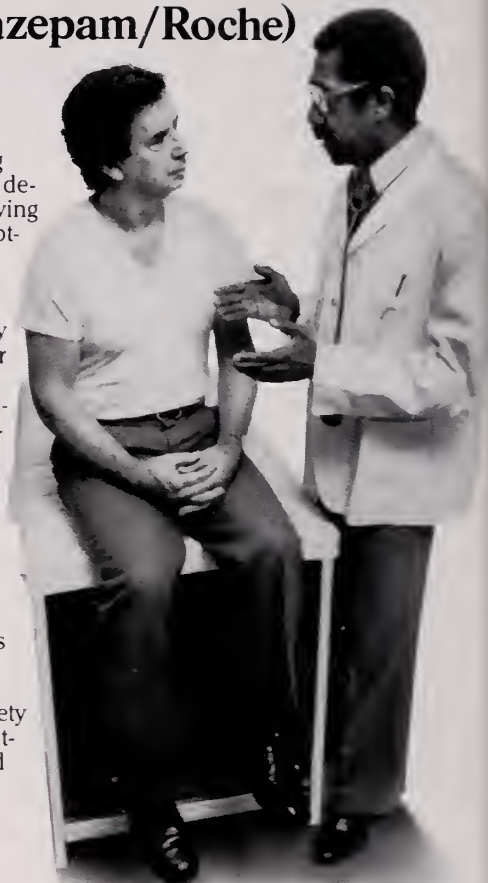
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Monitoring patient response to Valium® (diazepam/Roche)

Assessing initial response to therapy



During the first follow-up visit after initiating therapy, both physician and patient should determine if Valium (diazepam/Roche) is having the desired effect. Most patients will promptly report a feeling of relaxation and relief of anxiety-linked symptoms such as insomnia, headaches, palpitations and hyperventilation. You will probably observe that the patient is calmer and more relaxed. If, however, patient response does not measure up to expectations, a reevaluation of the patient's profile with modification of the dosage regimen should be considered.



Making dosage adjustments

START	ADJUST
2 mg to 10 mg 2x to 4x daily	↑ ↓

With any psychoactive medication it is good medical practice to initiate therapy at base dosage levels and titrate to the patient's needs. With Valium, experience has shown that 5 mg t.i.d. is usually sufficient although some patients with severe or persistent anxiety may require higher dosages initially. In geriatric or debilitated patients, the recommended dosage is 2 to 2½ mg once or twice daily.

When anxiety fluctuates, as is common with most patients, the dosage may be adjusted as needed during the course of therapy; three strengths in scored tablets give you unmatched flexibility and simplicity in individualizing dosage.

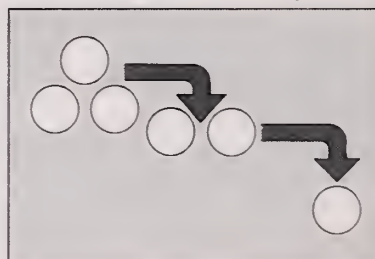
Evaluating progress toward therapeutic goals

SET GOALS						
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

At the beginning of therapy it is now common practice for both physician and patient to establish treatment goals and to estimate the amount of time needed to achieve them. Then the patient knows what to expect and when to expect it.

Some physicians find that compiling a checklist of presenting symptoms and complaints is useful for assessing the patient's response from visit to visit. In this way, progress toward attainment of the therapeutic goal is reviewed at regular intervals. As patients feel their symptoms abate and begin to develop insight into the sources of their anxiety and psychic tension, the checklist can be expected to dwindle.

Discontinuing pharmacologic intervention



When you decide to discontinue therapy, tapering dosage is good medical practice. Although rarely necessary after short-term treatment with Valium, gradual dosage reduction is advisable for patients who have been on extended therapy. This gradual discontinuance should preclude either recurrence of pretreatment symptoms or development of untoward side effects. Symptoms of withdrawal have almost always been associated with abrupt discontinuance of therapy at higher dosages taken continuously over long periods of time.

2-mg, 5-mg, 10-mg scored tablets
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diazepam/Roche

An Important Adjunct to Your Treatment Program for Excessive Anxiety



See the following page for a summary of product information.

Valium® (diazepam/Roche) ®

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders, psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, atetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Use in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available in trays of 10.



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a rainmaker. Now it won't even buy
an umbrella.

Editor's Corner

Inflation, Here We Come!

The pace of inflation is so insidious that one really doesn't acknowledge its wallop until attention is focused on a comparison from the recent past. Let me quote you an example — and excuse me if this is a very personal experience.

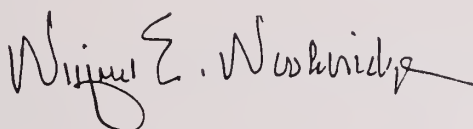
The scene is the fall of 1939. I was a freshman medical student at Washington University, chronically broke. I had just met a freshman college girl. Alas, she attended Lindenwood. Those 25 miles placed a tremendous strain on my pocketbook. I had no car and no friend affluent enough to loan me one. But I had saved FIVE DOLLARS. This was all I had on a Saturday evening and nothing more until the week's allowance from home came in Monday morning's mail.

The evening proceeded thus:

- (1) Kingshighway bus to Wellston streetcar to St. Charles bus.
- (2) Walked to Lindenwood college from downtown St. Charles.
- (3) Taxi with my date to St. Charles bus depot. St. Charles bus to Wellston streetcar to downtown St. Louis.
- (4) Dinner for two at the very good dining room of the old American Hotel (tip very thin).
- (5) Movie at the Ambassador Theater.
- (6) Coffee and ice cream at a restaurant near the theater after the show.
- (7) Reverse transportation back to St. Charles with me again walking from the college to the bus depot after midnight.
- (8) Reached home about 2 AM Sunday with TWENTY CENTS REMAINING.

Try that now!

And the girl? That was our first date and she didn't seem to mind. We have been happily married since 1942.



Wilfred E. Wooldridge, M.D.



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NEWS ROUND - UP

June, 1980

Council approves "Key Contact" meeting

During the June meeting in Columbia, members of the MSMA Council approved plans for a Legislative "Key Contact" meeting, to increase the effectiveness of the "Key Contact" Program. The meeting, which will give "Key Contacts" a greater knowledge of the legislative process, will be held January 10, 1981 in Jefferson City.

After a morning session featuring guest speakers from the Missouri Legislature, the afternoon program will be divided into three "breakout" groups. These smaller groups will cover the bills before the current General Assembly and MSMA position on the bills.

Plans for a joint meeting of the MSMA Council, the Legislative Committee, and the Interspecialty Commission were also approved by Council. The meeting was set for the Friday, October 31, prior to Interim Session.

The Council also took action on two resolutions referred to it by the 1980 House of Delegates:

No. 11) Definition of Medical Practice — referred to the MSMA Liaison Committee with the Board of Healing Arts.

No. 15) Certificate of Membership — appointed a committee of Drs. Richard Bradley, E. T. Hansbrough, and Gary Dyer to study and report back to the Council.

Also at the meeting, appointments of the following Councilor advisors to Commissions were made:

Continuing Medical Education — George Ladyman, M.D.

Public Affairs — Donald McIntosh, M.D.

Interspecialty Medicine — T.J. Cooper, M.D.

Medical Economics — Marvin A. Singleton, M.D.

Medical-Legal Affairs — Richard Fallon, M.D.

In other actions, the Council:

- instructed the Board of Directors of MOMEDICO to investigate possible methods of repaying the original note holders.

- granted permission for the Committee on the Impaired Physician to provide a program for the fall meeting of the Missouri hospital administrators.

- rejected an Avis Rent-A-Car proposal due to an overlap of AMA benefits.

- approved plans for another practice management workshop for new physicians to be conducted in the spring.

- discussed the importance of localized meetings between physicians and their congressmen when the congressmen are in their home district.

- approved CME accreditation for Missouri State Allergy Association and St. John's Hospital for three years.

- approved the Kansas City Hyatt Regency as the 1982 Annual Session site.

- went on record as supporting the AMA policy on the USDA Dietary Guidelines for Americans.

Ashcroft summarizes rape victim bill

A bill calling for state payment of certain costs which were previously the responsibility of rape victims was passed by the recent General Assembly. However, some of the bill's language needed clarifying and the MSMA asked Missouri Attorney General John Ashcroft for assistance in getting proper information to members.

Ashcroft responded with the following summary:

Senate Bill No. 661, signed into law on May 21, 1980, authorizes the Missouri Department of Social Services to pay the non-insured hospital costs and physician fees attributable to the medical examination of victims of rape. As a condition of this payment, the rape victim must give her written consent to the examination, and a report of the examination must be delivered to the local prosecuting attorney.

A minor may personally consent to such an examination. Her consent is not subject to disaffirmance because of minority, and consent of a parent or guardian is not required. The statute does require the hospital or physician making the examination to give the parent or guardian of a minor written notice that the examination has taken place.

Senate Bill No. 661 is an authorization for the described state payments, but the Legislature has not yet appropriated actual funds to make the payments. It should be noted that the act authorizes payment only for examination costs, not costs of treatment.

Pursuant to the statute, the Attorney General's office is developing forms and procedures to be used in processing payments to physicians and hospitals participating in the program.

CME mailing draws questions

In May, the MSMA mailed printouts of continuing medical education credits to many Missouri physicians. These credits were submitted to the MSMA either by the physician or by a hospital or organization which has been accredited by the MSMA to sponsor CME courses.

Some confusion has arisen due to the fact that several physicians did not know that hospitals and organizations were submitting credits to the MSMA. Below are the questions most frequently asked about the MSMA's computer-recorded CME Program:

Q. What is the MSMA's program?

A. Five years ago, the MSMA was granted the right to accredit continuing medical education programs in Missouri which offer hours that qualify for the AMA Physician's Recognition Award. When a physician attends a course sponsored by an accredited hospital or organization, the hospital automatically forwards the name of the physician and the number of hours to the MSMA. That information is placed on the MSMA computer and is available to the physician in printout form three times a year.

Q. Why have such a program?

A. The program is intended as a convenience to MSMA members. It allows physicians to submit their CME hours and requires the MSMA to keep track of how many hours and what category of hours a physician has completed.

Q. Is the program mandatory?

A. No, the program is voluntary. Since accredited hospitals do submit the name of each physician who attends a course, you may receive a printout. However, if you do not wish to participate in the MSMA program, just disregard the printout.

Q. I have many CME credits, why does the printout only show 3 hours and how did MSMA get those hours?

AMA to host September meeting in Kansas City

A three day AMA theme meeting "Drugs in Medical Practice" will be held September 27-29, 1980 at the Crown Center Hotel in Kansas City.

The concept of the "theme meeting" was launched this year by the AMA. Each meeting centers on one clinical theme organized around a disease, an organ system or a group of related treatments. The goal of the theme meetings is to offer new and clinically relevant information on a given medical area for both the specialist and the primary care physician.

A unique feature of the Kansas City meeting is that physicians of most specialties will have an opportunity to select relevant lectures and workshops, since several are scheduled simultaneously on different classes of drugs. In addition, much of the meeting time will be devoted to workshops where the physician will be given demonstrations and small group discussions of specific problems.

Physicians attending the Kansas City meeting will study the use of drugs to cope with such areas as heart irregularities, anxiety and depression, infectious disease, high blood pressure, diabetes, kidney disease, convulsive disorders, headache, health problems of older persons, blood fats, relief of pain and backache.

Further information on the Kansas City meeting is available from the Department of Scientific Assembly, American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610.

A. Those 3 hours were submitted directly to MSMA by an accredited hospital or organization where you attended a course. Only 3 hours are on record because you have not submitted the hours you have taken in CME programs not accredited by MSMA, i.e., out-of-state programs, medical school programs, etc.

Q. Since MSMA does not accredit these other programs, do the hours qualify?

A. Certainly. Only MSMA accredited groups submit hours directly to us. However, any CME activity a physician takes should be submitted by the individual so that the hours can be added to his total.

Q. How far back should I report my CME?

A. Any course taken within three years qualifies for the Physician's Recognition Award. The PRA is given for 150 hours (at least 60 Category 1) taken in a 3-year period.

Q. How do I report additional CME hours not on the printout?

A. Hours not shown on the printout should be sent to MSMA Headquarters by letter or by "green reporting cards" — which are available upon request from MSMA. When submitting by letter, please include: date of course, sponsor, topic, CME category and number of hours.

Q. What CME categories does the Physician's Recognition Award require?

A. There are 6 categories. Below are the limits allowed in each:

Category	Credit Hour Limit
1. CME with Accredited Sponsorship (60 hour minimum)	No Limit
2. CME with Non-Accredited Sponsorship	45 hours
3. Medical Teaching	45 hours
4. Articles, Publications, Books, Exhibits	40 hours
5. Non-Supervised Individual CME: Self-Instruction Consultation, Patient Care Review, Self-Assessment (22 hours limit in each sub-category)	45 hours
6. Other Meritorious Learning Experience	45 hours

Q. Why should I participate in the program?

A. It is a simple way to keep track of your CME hours and, when you qualify, the MSMA automatically submits your name for a PRA. Also, the printout can be used as proof of CME in those states which have mandatory CME for license renewal and to maintain staff privileges in hospitals which have such requirements.

Q. Who has access to my CME information?

A. The information is confidential and available only to the participating physician. Upon request of the physician, his own record will be sent to an agency or hospital.

Q. Are non-members of MSMA permitted to participate in the program?

A. The program is designed for MSMA members. However, non-members may participate for an annual computer charge of \$100.

Q. How can I get more information?

A. Either call MSMA Continuing Medical Education Director at (314-636-5151) or write MSMA, P.O. Box 1028, Jefferson City, MO 65102.



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DESCRIPTION

Rabies Immune Globulin (Human)—Hyperab[®] is a sterile solution of antirabies gamma globulin (IgG) concentrated by cold alcohol fractionation from plasma of donors hyperimmunized with rabies vaccine. Hyperab[®] globulin is a 16.5% $\pm$ 1.5 solution of gamma globulin from venous blood in 0.3M glycine, preserved with 1:10,000 Thimerosal (a mercury derivative). Its pH is adjusted with sodium carbonate. The product is standardized against USA Standard Antirabies Serum. The USA unit of potency is equivalent to the International Unit (IU) for rabies antibody.

This product is prepared from human venous plasma. Each individual unit of plasma has been found nonreactive for hepatitis B surface antigen using the radioimmunoassay method of counter-electrophoresis.

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Treatment of rabies, once clinical disease becomes apparent, is rarely if ever successful. Rabies vaccine (duck-embryo origin, Lilly Laboratories) with or without Rabies Immune Globulin (Human)—Hyperab[®] should therefore be given to all persons suspected of exposure to rabies, particularly to severe exposure. Whenever possible, Hyperab[®] globulin should be injected as promptly as possible after exposure. If initiation of treatment is delayed for any reason, however, Rabies Immune Globulin (Human) should be given just the same, regardless of the interval between exposure and treatment.

Rabies virus is usually transmitted by the bite of a rabid animal, but can occasionally penetrate abraded skin with the saliva of infected animals. Progress of the virus after exposure is believed to follow a neural pathway and the time between exposure and clinical rabies is a function of the proximity of the bite (or abrasion) to the central nervous system and the dose of virus injected. The incubation is usually 2 to 6 weeks, but can be longer. After severe bites about the head and neck, it may be as short as 10 days.

After initiation of the vaccine series, it takes 2 weeks or longer for development of immunity to rabies. Since most vaccine failures have occurred in cases of severe exposure, the value of immediate immunization with preformed rabies antibody cannot be over-emphasized.

Recommendations for use of passive and/or active immunization after exposure to an animal suspected of having rabies were detailed by WHO and by the US Public Health Service Advisory Committee on Immunization Practices (ACIP).

INJECTION PROCEDURE

A portion of the Hyperab[®] globulin dose should be used to infiltrate the wound. The rest is injected intramuscularly.

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Rabies Immune Globulin (Human)—Hyperab[®] is contraindicated in repeated doses, once vaccine treatment has been initiated. Repeating the dose may bring about interference with full expression of active immunity expected from the vaccine. Hyperab[®] globulin is also contraindicated in individuals who are known to have an allergic response to gamma globulin or thimerosal.

PRECAUTIONS

NEVER ADMINISTER Hyperab[®] globulin INTRAVENOUSLY.

ADVERSE REACTIONS

Slight soreness at the site of injection, and slight temperature elevation, may be noted at times. Sensitization to repeated injections of human globulin is extremely rare.

In the course of routine injections of a large number of persons with human gamma globulin, there have been a few isolated occurrences of angioneurotic edema, nephrotic syndrome, and anaphylactic shock after injection. Because of their rarity, it is difficult to determine whether such reactions are incidental or causally related to the gamma globulin.

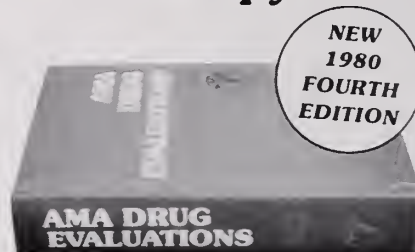
No instances of transmission of hepatitis B (homologous serum jaundice) have been reported from the use of human gamma globulin prepared by the fractionation methods employed by Cutter Laboratories, Inc.

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Rabies Immune Globulin (Human)—Hyperab[®] is packaged in 2-ml and 10-ml vials with a potency of 150 International Units per ml (IU/ml). The 2-ml vial contains a total of 300 IU which is sufficient for a child weighing 15 kg (33 lb). The 10-ml vial contains a total of 1500 IU which is sufficient for an adult weighing 75 kg (165 lb).

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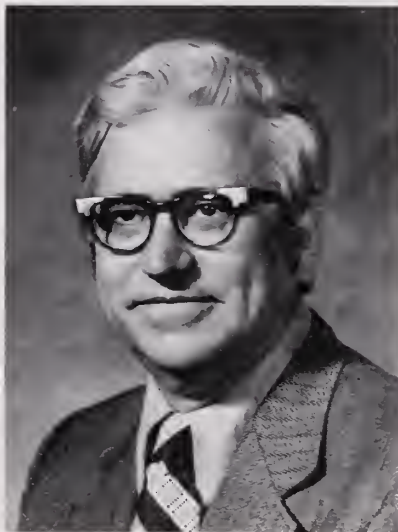
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Dr. Eugene T. Hansbrough Named MSMA President-Elect



Eugene T. Hansbrough, M.D., Poplar Bluff, was elected president-elect of the Missouri State Medical Association during the 122nd Annual Session at the Crown Center Hotel in Kansas City on April 17-20, 1980.

Dr. Hansbrough is immediate past-chairman of the MSMA Council and served as councilor from the Tenth District for several terms.

A member of Butler-Wayne-Ripley-Carter Component Medical Society, Dr. Hansbrough received his M.D. degree at the University of Arkansas in 1948. He served his internship at Indianapolis General Hospital and his residency in surgery at the Veterans Administration Hospital in Little Rock, Ark.

Dr. Hansbrough's professional appointments have included clinical professor of surgery, University of Arkansas; consultant of surgery, Veterans Administration Hospital, Poplar Bluff; and chief of surgery, Doctors Hospital, Poplar Bluff. He is a member of the American Medical Association, Southwestern Surgical Society and American College of Surgeons.

Dr. Hansbrough served as a captain in the U. S. Air Force in 1948-1951. His civic activities include membership in the Poplar Bluff Chamber of Commerce, Missouri Cancer Programs, Inc., Missouri Regional Medical Program and Bi-State Regional Medical Program. He has served as chairman of the Board of Trustees of Three Rivers Junior College.

Dr. and Mrs. Hansbrough are the parents of three children — Ann, E. T., Jr. and Randy.

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CONTRAINDICATIONS Use in Newborn or Premature Infants. This drug should not be used in newborn or premature infants.

Use in Nursing Mothers. Because of the higher risk of antihistamines for infants generally and for newborns and prematures in particular, antihistamine therapy is contraindicated in nursing mothers.

Use in Lower Respiratory Disease. Antihistamines should NOT be used to treat lower respiratory tract symptoms including asthma.

Antihistamines are also contraindicated in the following conditions: hypersensitivity to azatadine maleate and other antihistamines of similar chemical structure, monoamine oxidase inhibitor therapy (See DRUG INTERACTIONS Section).

WARNINGS Antihistamines should be used with considerable caution in patients with narrow angle glaucoma, stenosing peptic ulcer, pyloroduodenal obstruction, symptomatic prostatic hypertrophy, bladder neck obstruction.

Use in Children. In infants and children especially, antihistamines in overdosage may cause hallucinations, convulsions, or death.

As in adults, antihistamines may diminish mental alertness in children. In the young child, particularly, they may produce excitation.

OPTIMINE TABLETS ARE NOT INTENDED FOR USE IN CHILDREN UNDER 12 YEARS OF AGE.

Use in Pregnancy. Experience with this drug in pregnant women is inadequate to determine whether there exists a potential for harm to the developing fetus.

Use with CNS Depressants. Azatadine maleate has additive effects with alcohol and other CNS depressants (hypnotics, sedatives, tranquilizers, etc.).

Use in Activities Requiring Mental Alertness. Patients should be warned about engaging in activities requiring mental alertness, such as driving a car or operating appliances, machinery, etc.

Use in the Elderly (approximately 60 years or older): Antihistamines are more likely to cause dizziness, sedation, and hypotension in elderly patients.

PRECAUTIONS Azatadine maleate has an atropine-like action and, therefore, should be used with caution in patients with a history of bronchial asthma, increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension.

DRUG INTERACTIONS MAO inhibitors prolong and intensify the anticholinergic (drying) effects of antihistamines.

ADVERSE REACTIONS The most frequent adverse reactions are underlined.

General: Urticaria, drug rash, anaphylactic shock, photosensitivity, excessive perspiration, chills, dryness of mouth, nose, and throat.

Cardiovascular System: Hypotension, headache, palpitations, tachycardia, extrasystoles.

Hematologic System: Hemolytic anemia, thrombocytopenia, agranulocytosis.

Nervous System: Sedation, sleepiness, dizziness, disturbed coordination, fatigue, confusion, restlessness, excitation, nervousness, tremor, irritability, insomnia, euphoria, paresthesias, blurred vision, diplopia, vertigo, tinnitus, acute labyrinthitis, hysteria, neuritis, convulsions.

Gastrointestinal System: Epigastric distress, anorexia, nausea, vomiting, diarrhea, constipation.

Genitourinary System: Urinary frequency, difficult urination, urinary retention, early menses.

Respiratory System: Thickening of bronchial secretions, tightness of chest and wheezing, nasal stuffiness.

OVERDOSAGE Antihistamine overdosage reactions may vary from central nervous system depression to stimulation. Stimulation is particularly likely in children. Atropine-like signs and symptoms (dry mouth, fixed, dilated pupils, flushing, and gastrointestinal symptoms) may also occur.

If vomiting has not occurred spontaneously, the patient should be induced to vomit. This is best done by having him drink a glass of water or milk after which he should be made to gag. Precautions against aspiration must be taken, especially in infants and children.

If vomiting is unsuccessful, gastric lavage is indicated within three hours after ingestion and even later if large amounts of milk or cream were given beforehand. Isotonic and ½ isotonic saline is the lavage solution of choice.

Saline cathartics, such as milk of magnesia, draw water into the bowel by osmosis and therefore are valuable for their action in rapid dilution of bowel content.

Stimulants should not be used.

Vasopressors may be used to treat hypotension.

FEBRUARY 1977

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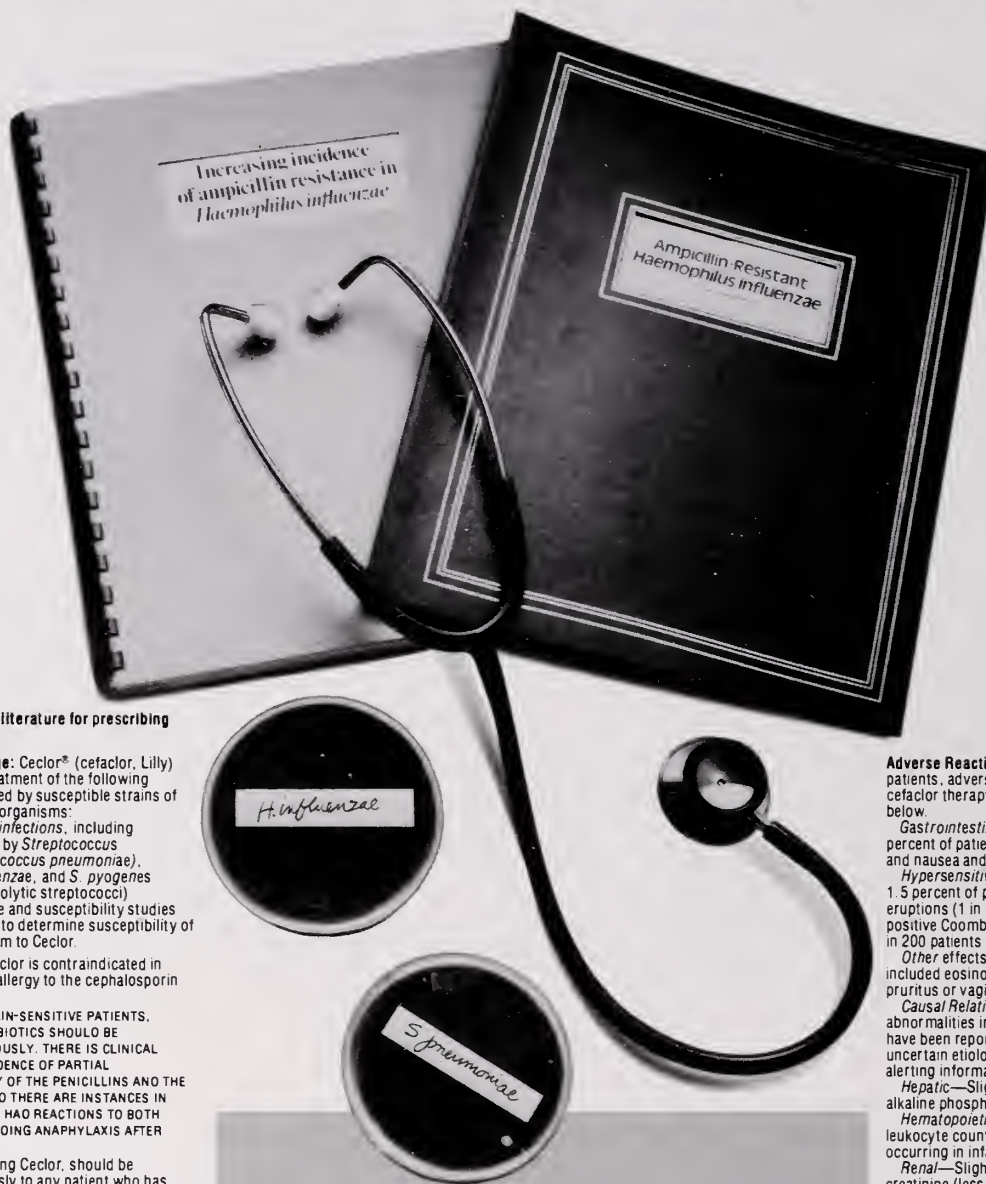


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An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Cefclor® (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci). Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS. AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefclor

Pulvules®, 250 and 500 mg

Adverse Reactions: In clinical studies in 1493 patients, adverse effects considered related to cefclor therapy were uncommon and are listed below.

Gastrointestinal symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[0703799]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefclor® (cefclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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8. Principles and Practice of Infectious Diseases (edited by G. L. Mandell, R. G. Douglas, Jr., and J. E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285
Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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JOSEPH C. O'LAUGHLIN, D.O. and JAMES W. HOFTIEZER, M.D., *Columbia*
and ANTHONY M. DiGIOVANNI, D.O., *Warren, Michigan*

Esophageal Intramural Pseudodiverticulosis

Case Report

ESOPHAGEAL INTRAMURAL PSEUDODIVERTICULOSIS (EIP) is the term finally agreed upon to describe the bizarre radiographic findings first described by Mendl¹ in 1960. He reviewed an esophageal x-ray in a patient with chronic dysphagia in which multiple 1-mm to 2-mm extraluminal collections of barium were noted to protrude from the esophageal lumen. Narrow ducts connected these outpouchings to the lumen. Mendl felt that the radiographic appearance of these esophageal diverticula was similar to that of Rokitansky-Aschoff sinuses of the gallbladder. At this time, fewer than 40 cases of EIP have been reported. Each has demonstrated distinctive radiologic findings but has shown varying endoscopic and histologic features. Considerable speculation concerning the pathogenesis of these esophageal outpouchings has arisen. Only recently have autopsy studies clarified this issue.

The purpose of this paper is to present findings in an additional patient with EIP. Treatment was given on an outpatient basis. Current concepts of the etiology, diagnosis and treatment of EIP are reviewed.

CASE REPORT

A 48-year-old white woman received outpatient evaluation for complaints of dysphagia for solids and liquids for a two-year period. Solid foods gave sensations of sticking in the throat. Liquids were occasionally regurgitated. There was no hematemesis, odynophagia or weight loss. The patient used an antacid (MaaloxTM) intermittently for relief.

Prior medical history included two episodes of duodenal ulcer which healed with medical treatment. Results of a physical examination and routine laboratory studies were normal.

A barium swallow was performed (Fig. 1). Multiple 1-mm to 2-mm collections of barium were noted to project in a perpendicular fashion from the upper two thirds of the esophagus.

An esophagogastroduodenoscopy was performed using an Olympus GIF-D2 endoscope. The scope was advanced into the upper one third of the esophagus but could not be passed further because of apparent narrowing. A friable mucosa was noted. Esophageal dilatation was performed successively up to a 36 French Hurst dilator. The endoscope was then reinserted and diffuse esophageal friability was noted

The international literature includes reports of fewer than 40 cases of esophageal intramural pseudodiverticulosis (EIP), a rare disease that results from dilatation of the main excretory ducts of the submucosal glands. The authors report findings in an additional patient with EIP who was treated successfully on an outpatient basis and review current concepts of the disease.

Dr. O'Laughlin and Dr. Hoftiezer are from the University of Missouri-Columbia Medical Center where each is a Fellow in Gastroenterology. Dr. DiGiovanni is Assistant Clinical Professor of Medicine, Michigan State University.



Fig. 1 (Right) Multiple 1 mm to 2 mm extraluminal collections of barium can be seen in upper two thirds of esophagus (*white arrows*). (Left) Distal esophagus with relatively few pseudo-diverticuli when compared to upper esophagus.

throughout the esophagus. No distinct ulcerations were found. Multiple small depressions were discovered in the mucosa of the upper two thirds of the esophagus. There was no pseudomembrane noted. The squamous columnar junction was distinctly visualized and a small sliding hiatal hernia was found. The endoscope entered the stomach without resistance and was advanced to the third portion of the duodenum, all of which appeared to be normal.

Esophageal washings and brushings were cytologically normal. Cultures failed to isolate any pathogenic organisms. Biopsy specimens of the esophageal mucosa showed only mild chronic inflammation.

Following dilatation, the patients' dysphagia completely cleared. Dilatation was repeated one, two, four and six months after the original treatment. Fifteen months after her first dilatation, she remained symptomatically well. However, her x-rays were unchanged.

DISCUSSION

Except for reports of EIP in radiology literature, there has been little attention given to this condition. The condition occurs equally in men and women and in all races so far as has been determined. It is most common in the sixth and seventh decades, although patients have been so diagnosed in childhood.^{2, 3} The only disease commonly associated with EIP is diabetes. It occurs in approximately 30% of the reported cases.

Chronic dysphagia has been the most common symptom, occurring in 90% of the cases reported.³ The mean duration of symptoms prior to diagnosis has been eight years, but some patients have been symptomatic as long as 25 years.⁴ Only

one patient has been first seen with acute dysphagia.⁵ There has been no correlation between the severity of dysphagia and the radiographic or endoscopic appearance of the lesions. The disease causes no symptoms, but it invites secondary infection and inflammation which produces strictures and dysphagia. Strictures are found in 90% of the cases, with two thirds of them being in the upper third of the esophagus.⁶ Candida has been found in nearly half of the reported cases of patients with EIP.⁶

PATHOGENESIS

Mendl¹ originally felt that increased intraluminal pressure caused herniation of mucosa through the muscular layer of the esophagus. He was struck by the resemblance of the radiographic appearance of Rokitansky-Aschoff sinuses in the gallbladder to EIP. Eighteen of the 26 cases of Rokitansky-Aschoff sinuses of the gallbladder reported at that time were secondary to stenosis of the proximal portion of the gallbladder, so Mendl theorized a similar obstructive mechanism in the esophagus could cause EIP.¹

Since Mendl's original case, there have been three theories propounded as etiology: congenital, Candida infection and motility disorders. Lupovitch felt there was a congenital or acquired increase in the number of esophageal submucosal glands present over and above the usual 0-16/cm.⁷ He thought this increase in the number of glands predisposed them to chronic inflammation causing them to enlarge and dilate. He felt that

"esophageal adenosis" was a more accurate term in describing this condition.

In 1975, Umlas' work refuted Lupovitch's theory.⁸ Umlas presented autopsy findings proving the radiologic findings to be caused by pathologically dilated terminal excretory ducts of the pre-existing submucosal glands. He found that these dilated ducts indented the muscularis but did not penetrate it and, therefore, should be called pseudodiverticuli. He serially sectioned normal esophagus and found 0-16 glands/cm, compatible with the number of dilatations found in EIP patients. He felt that these dilatations were normally present anatomic structures which had become distended. Umlas further substantiated this view by showing these pseudodiverticula to be evenly distributed in a linear fashion between esophageal folds which is a location corresponding to normal glands. Most of these mucosal glands occur in the upper esophagus, which correlates with the preponderance of strictures found in the upper esophagus.⁶

The second theory of formation was set forth by Tropin who described a case of EIP thought to be secondary to *Candida*.⁹ Indeed, for some time, *Candida* esophagitis remained the major differential diagnosis from EIP. A case reported by Zatzkin¹⁰ as EIP was subsequently documented by Smulewicz to be *Candida* esophagitis.¹¹ To date, 50% of biopsied or cultured patients with EIP have yielded *Candida* organisms. This finding, however, is to be interpreted with care because *Candida* may normally occur in the oropharynx and esophagus. Only tissue invasion should cause consideration of pathogenicity and even this may occur secondarily.

The presentation of *Candida* esophagitis should permit easy distinction from EIP with which it was formerly confused. *Candida* esophagitis usually occurs in an immunocompromised host. Patients with *Candida* esophagitis have acute odynophagia and dysphagia, as opposed to the chronic complaints of patients with EIP. A barium swallow may reveal localized or extensive mucosal irregularity, submucosal edema, and mucosal ulcerations. Irritability and spasm are usually present. Endoscopy shows a cobblestone appearance with a friable yellow-white pseudomembrane from which *Candida* can be cultured. If the condition is not treated aggressively with oral nystatin swallows, it may become rapidly progressive or fatal. EIP, in comparison, is relatively indolent. Nystatin swallows characteristically cause an improvement in *Candida* esophagitis

within two to four days, while no change is seen when EIP is treated this way. It therefore, seems unlikely that *Candida* cultured frequently from the esophagi of patients with EIP has any etiologic role.

The third theory of the etiology of EIP concerns motility derangements. Those patients with EIP who were tested with manometry usually revealed generalized or localized motility disorders.³ No high amplitude or tonic contractions were noted as Mendl originally theorized. Indeed hypocontractility and uncoordinated waves were prominent. Of the diabetic EIP patients tested with manometry, there appeared to be no motility changes related to autonomic neuropathy. However, several nondiabetics exhibited severe motor disorder including aperistalsis. Thus diabetes would appear to be excluded as the sole cause of these motility disturbances. The question remains whether some chronic fibrosing inflammatory process is responsible for damaging the neuromuscular apparatus of the esophagus.

PATHOLOGY

More than 80% of the cases of EIP that were biopsied or studied postmortem have shown chronic or acute inflammation.³ Seventeen percent were also found to have generalized submucosal fibrosis. Six per cent had columnar lined mucosa. One patient had a squamous cell carcinoma. Fromkes found in postmortem work that the radiographic projections corresponded to the dilated main excretory ducts of the esophageal submucosal glands.³ These glands were frequently rimmed with an inflammatory infiltrate and occasionally microabscesses were found. Deep inflammatory infiltrates with fibrous thickening were found in the submucosa.

RADIOLOGIC FINDINGS

The barium swallow is most important in the diagnosis of EIP. Multiple flask-shaped intramural outpouchings of variable size are characteristic. These usually project in a perpendicular fashion from the esophageal lumen. The projections are typically less than 3 mm in length and about 1 mm in diameter at their ostia. In two thirds of the cases of EIP, these outpouchings are generalized, with localized collections of barium being found in the other third. Strictures, as mentioned above, are common. They are characteristically short (1 cm to 2 cm). Strictures are most common in the upper one third of the esophagus where the submucosal glands and, therefore, the

pseudodiverticula are most numerous. A relation between stricture and peridiverticulitis has been postulated but not proven.

Hiatal hernias were present in one fourth of the cases and free reflux was found in approximately 10%.³ At least one case of EIP has developed with previously normal radiographs, suggesting an acquired defect.¹² There is, however, a report of two brothers, one eight and one 10-years-old, who both had EIP with dysphagia¹³

ENDOSCOPY

A review of endoscopic findings in EIP by Fromkes showed that 50% of cases had visible esophagitis with 17% being completely normal endoscopically.³ Only 17% had visible ostia. The ostia appear as pinpoint mouths of the pseudodiverticula between the esophageal folds. These pseudodiverticula contract with peristalsis, and small amounts of clear fluids may be expressed.¹⁴

TREATMENT

The therapeutic approach to EIP appears to hinge on periodic esophageal dilatation. Castillo reported a good response in 100% of cases treated with dilatation.⁶ How often dilatations need to be performed apparently depends on individual symptoms. The location and extent of stricture would appear to be the major variable. Concomitant reflux or a continuing inflammatory process would be additional factors. Antifungal therapy is likely unnecessary. Dilatation usually does not change radiographic or endoscopic appearance, although in one case there was a complete resolution.¹⁴

SUMMARY

EIP is a rare condition resulting from dilatation of the main excretory ducts of the submucosal glands. The pathogenesis of these ductal dilations is not known. In most patients, the condition seems to be acquired, but some are probably congenital. While the disease process itself causes no symptoms, these patients seem predisposed to secondary infection and inflammation with resultant stricture formation and dysphagia. Many also have esophageal motility abnormalities. The x-ray findings are characteristic and diagnostic. The clinical course is benign, with 100% improvement of the dysphagia after one or more esophageal dilations.

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The 40th Annual AMA Congress on Occupational Health will be held September 11-12 in Salt Lake City. The conference will be hosted by the Utah State Medical Association and the Rocky Mountain Center for Occupational and Environmental Health. Topics will include the Occupational Safety and Health Administration's perspectives for the 80s, reproductive impairment in the workplace, and health hazards of various energy sources. Participants will earn 12 hours of Category I CME credit. Registration fee is \$65 for physicians and \$45 for allied health professionals. For more information contact the Department of Environmental, Public and Occupational Health, AMA Headquarters.

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Diagnosis and Treatment of Human Scabies Infestations

SCABIES is a relatively common cutaneous disorder caused by the "itch mite," *Sarcoptes scabiei*. Spreading readily through close physical contact, this contagious disease is markedly pruritic and shows several characteristic superficial skin signs which allow a clinical diagnosis.¹ This paper presents a review of the usual pathogenesis and a discussion of the usual clinical presentations. We wish to emphasize the proper treatment for each type of scabies and the correct safety measures to be employed in using powerful scabicides.

PATHOPHYSIOLOGY

Scabies is due to infestation by the mite *Sarcoptes scabiei* var *hominis*. They are whitish, hemispherical mites measuring 0.4 mm $\times$ 0.2 mm. The body of the mite is covered with transverse corrugations, brown spines and bristles, and it has four pairs of legs.² The fertilized female mite invades the epidermis and burrows through the stratum corneum. Each day, the mite extends her tunnel by approximately 2 mm and leaves a trail of two or three eggs and scybala (feces). The mite deposits between ten to 25 eggs over about eight to ten days and then dies in the burrow.² The larva emerge from the eggs in three to four days, migrate to the skin surface and mature in 14 to 17 days. The mites require a human host for survival and cannot sustain themselves on inanimate fomites, e.g., clothing or furniture, for more than two days before dying (Fig. 1).³

Infestation of the patient occurs through close physical contact with an infested person or animal. Infestations are common between sexual partners, family members and physically close friends. Intimate personal apparel such as bed linens, towels and underclothing may spread the disease, but the infection is rarely acquired from casual acquaintances, fellow employees or from fomites, e.g. outerwear or furniture.⁴

The major defense of the body against scabies is cell mediated (delayed) hypersensitivity. Im-

mediate hypersensitivity and serum immunoglobulins have been shown to be ineffective in controlling scabies.⁵ Immediately after infestation, the mite is able to flourish in the skin encouraged by the temporary lack of delayed hypersensitivity.⁴ Therefore, for approximately 30 days after the onset of infestation, the patient is asymptomatic, a seemingly normal "carrier" of the mites. The patient may have numerous organisms on the skin and a few cutaneous signs of the infestation but, because of the lack of symptoms (specifically pruritus), usually no medical help is sought. Once hypersensitivity to the mite, its eggs and scybala is established, which is usually about 30 days after infection, the allergic-type reactions in the skin begin with pruritus and vigorous scratching follows.⁶ The mite often is destroyed due to both excoriations and the lymphocyte mediated reactions.⁶ When the same patient is reinfested later because the delayed hypersensitivity to scabies is already established, the symptoms begin promptly or within one to two days, and the period of being an asymptomatic carrier is almost absent.⁵

CLINICAL PRESENTATIONS

Itching is the hallmark of scabies. Characteristically, this pruritus becomes most intense when the patient tries to fall asleep in a warm bed.

Scabies is a common cutaneous disease that is highly contagious through close physical contact. The authors discuss the usual clinical presentations and emphasize the importance of proper treatment for each type of scabies and the correct safety measures to be observed when using powerful scabicides. Dr. Fennewald and Dr. Anderson are from the Department of Dermatology, University of Missouri-Columbia Medical Center.

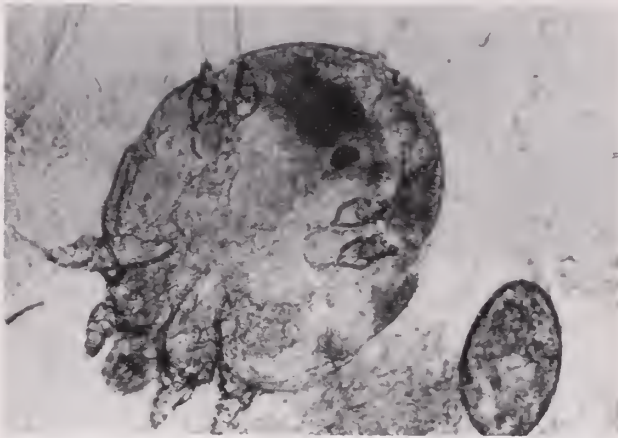


Fig. 1 Important to treatment is the correct original diagnosis, made by examining a scraping of skin. Scabies and eggs are distinctive.



Fig. 2 Cutaneous lesions on the hands occur frequently. Burrows and excoriation shown here.

Commonly, patients awake in the night, scratching and aggravated by pruritus. The pathognomonic lesions of scabies are the burrows which are grey to skin-colored, have narrow ridges about 5 mm to 15 mm in length and usually are serpiginous. Burrows are found mostly on the flexural areas of the wrists, lateral borders of the fingers, the fingerwebs, the intertrigous areas, groin, penis and umbilicus. Patients exhibit burrows on the hands in 85% of cases and on the penis in 30% of all cases.² Vesicles are often seen at the end of burrows, especially on the fingers (Fig. 2).

Secondary lesions are common and include numerous small urticarial-like papules, excoriations, crusting and various eczematous eruptions. Often bacterial infections, especially impetigo and pyoderma, may occur secondarily in the eruption caused by scabies. Pyodermas can cause various systemic illnesses, including glomerulonephritis.²

In today's society of improved hygiene and frequent bathing, a patient who itches and scrubs

vigorously often will destroy the burrows. These patients exhibit numerous mites but infrequent clinical signs and only 7% have typical burrows.⁷ The inappropriate use of topical corticosteroids also will enable numerous mites to exist with few clinical signs; a presentation of the disease which Orkin calls "scabies incognito."⁴ Topical steroids cause depression of delayed hypersensitivity and pruritus, thus allowing the *sarcoptes* an uninhibited existence and escape from proper treatment.² Indiscriminate use of steroids for pruritus should be avoided; patients with unexplained pruritus and eczema must be examined carefully for scabies.

Scabies in infants often is incorrectly diagnosed as eczema because the physician does not think of scabies. The absence of burrows, the involvement of atypical areas (especially the head, neck and distal extremities including the feet) and the severe eczematous reactions (usually with secondary infections) are all confusing to the doctor.⁸ The diagnosis is usually not apparent until other family members become infected and exhibit the more classical signs and symptoms of scabies (Fig. 3).

Persistent nodular scabies occurs in approximately 7% of all cases of scabies.⁹ Initially, these are ordinary areas of *sarcoptes* infestation. Due to severe hypersensitivity reactions, however, they are transformed into multiple pruritic papules or nodules of reddish-brown color. These papules or nodules usually are located in the axilla, abdomen and groin and are extremely pruritic, easily secondarily infected and often require intralesional steroids to resolve them. Nodules well treated will gradually regress to hyperpigmented macules, often with some scar (Fig. 4).



Fig. 3 Infants infested with scabies mites may present a different clinical picture from that of adults.

Norwegian or crusted "hypertrophic" scabies is extremely uncommon.¹⁰ These patients are seen with psoriasiform lesions that contain hundreds of mites. This presentation is common in patients with low intelligence, impaired sensory perception and suppressed immunity.¹¹ These patients may be the cause of mass epidemics of scabies infestation especially in institutions and custodial homes.

DIAGNOSIS

Proper diagnosis depends upon identification of the major clinical sign, i.e., the excoriated burrow in the fingerwebs, groin, on the penis, in the submammary area and, especially, in the umbilicus. Subsequent visualization of the mite is the best mode of diagnosis.

There are two proven methods of obtaining specimens of sarcoptes for microscopic examination. Both methods depend on finding a characteristic burrow and locating, usually in bright light with a magnifying glass, a tiny dark speck in the end of the burrow which is the mite.

If the patient does not have a good burrow, the newest and most pruritic papules should be sought. The mineral oil scraping is the best and most used method.¹² In this technique, one to two drops of mineral oil are applied to the edge of a No. 15 blade and the skin surface is scraped vigorously in order to remove the stratum corneum and, hopefully, the mite. The procedure is uncomfortable and usually not painful, with only a few drops of blood shed.

A second method is similar in nature in that a No. 15 blade is used to perform a superficial shave biopsy of the suspected lesion.¹³ The superficial stratum corneum is then placed on a slide with a drop of mineral oil, and the mite, eggs or scybala may be identified. The rate of success for obtaining a positive visualization ranges from about 30% to 95%.¹⁴ The major factors in success are proper identification of the most typical lesions and persistence. Patients with scabies have, as an average, only ten to 20 adult mites on the entire body surface at one time.² Repeated examinations are useful.

TREATMENT

Once properly diagnosed, scabies can be treated with great success by using topical antiscabietic lotions and creams properly. However, many problems can be produced iatrogenically either by improper diagnosis or through improper selection of cases or incorrect use of these same scabi-

cidal medications.¹⁵ Improper diagnosis tends to lead into excessive repeated treatments which may greatly increase the absorption of the scabicide. Selection of cases is concerned with properly resolving eczema before applying scabicides and with conservative therapy of infants. Technique is important because failure to cure scabies on the first opportunity may lead to repeated therapy for an entire family group. All antiscabietic medications should be applied in a thin coat to the entire skin from the angle of the mandible to the distal extremities, paying particular attention to the hands, feet, intertrigous and flexural areas. It is a great and common error to apply these creams only to the pruritic areas.

The entire body surface excluding the head in adults should be treated routinely for scabies. These medications have increased cutaneous absorption if applied after a hot bath and allowed to remain on the skin for prolonged periods of time. We wish to minimize absorption of scabicides. Therefore, direct the patient to apply these lotions and creams to cool dry skin and wash off all medication at the correct time. It is the physician's responsibility to prescribe the correct amount of medication, inform the patient fully and not allow improper refills.¹⁵

Treatment of all family members, sexual contacts and persons to whom close physical relationships exist should be simultaneous. No close



Fig. 4 Nodules and burrows on the penis are classic sign of scabies.

contacts of the patient can be neglected. Even though a person is not itching, he may be an asymptomatic carrier and, later, will be the cause of reinfestation for the entire group. Immediately following the initial treatment, all bed linens, towels and underclothing should be thoroughly laundered. Outerwear, furniture and other fomites need not be treated.¹⁶

No antiscabietic is effective against the ovum. Therefore, it is advisable to repeat the treatment in all patients in seven days to destroy any recently hatched larvae.

Gamma benzene hexachloride (GBH or Lindane) has been the most effective antiscabietic medication available since it was first used and reported in 1948.¹⁷ GBH is extremely toxic to scarpotes and requires cutaneous contact maximally for only about six to eight hours to destroy all the mites.¹⁸

GBH is an irritating chemical that is able to induce an irritant eczema in anyone if applied excessively. Persons predisposed to develop eczema, such as persons who had atopic dermatitis in early childhood, may tolerate GBH very poorly. For these people, GBH may be omitted or may be used sparingly or in combination with another scabicide, depending on the judgement of the physician and the characteristics of the infestation.

Absorption of GBH through the skin is to be avoided because, in substantial levels, it is toxic to the central nervous system, producing headache, nausea, emesis, confusion, seizures and even coma and death.^{19,20} Two guidelines are known for avoiding excessive absorption; first, do not apply excessive total amounts of GBH to the skin, and wash it off after the prescribed time; second, do not use GBH if the protective barrier of the skin is severely compromised. Therefore, GBH should not be prescribed for infants under two years of age, pregnant women or patients with extremely eczematous or excoriated skin.²¹ GBH should not be left on the skin for more than eight hours,¹⁸ with one reapplication in seven days. Usually, two ounces (60 cc) of 1% GBH is a sufficient amount to prescribe to the average adult for the two applications needed. Supervision may be required. Patients must be instructed explicitly about the abuse of GBH.

Crotamiton (Eurax[®]) is the most widely used alternative treatment for scabies.¹⁶ It is an effective antipruritic and antiscabietic agent, but there are increasing reports of scabies resistant to crotamiton. This medication may be the best choice for

treating infants under two years of age and for patients with severe pruritic eczema and excoriations. Crotamiton is applied to the entire body, with reapplication every 12 hours for two days. It should be washed off thoroughly 48 hours after the initial application.

Powdered sulfur is the classic treatment for scabies used for centuries and is now often recommended for infants and pregnant mothers.³ It should be prescribed as 5% to 10% precipitated sulfur in petrolatum and should be applied nightly for three nights and be followed by a bath the next morning. It is messy, staining and odoriferous; but relatively safe and inexpensive.

Benzyl benzoate is an additional effective antiscabietic preparation when used as a lotion or cream in strengths of 20% to 40%.^{4, 22} It is cosmetically acceptable to most patients and does not stain clothes or bedding apparel. Benzyl benzoate should be applied nightly to the entire body and be followed by a bath the next morning for three applications.

Following effective therapy, i.e., after all scarpotes are killed, several weeks may be needed until the symptoms and signs clear. The patient may complain that the treatment has failed. This delay in recovery is due to a natural continuation of the inflammation and basic hypersensitivity state following destruction of the mite. The physician should not be misled into believing that the therapy was ineffective or that the patient has become reinfested. Such an error leads to inappropriate further treatment with GBH and increases risks to toxicity. The use of oral antipruritic agents, antihistamines and other soothing topical agents is recommended for the postscabietic period. Careful reexamination and scrapings may be necessary for several weeks to rule out reinfection. Proper therapy for the entire family and sexual group is the best assurance against reinfection.

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Facts About Suicide: How Knowledgeable Is the Primary Care Physician?

THIS PAPER describes a questionnaire survey of suicide knowledge. The reader may wish to take the questionnaire (Appendix I) for self-assessment before reading further. A scoring key (Appendix II) is provided.

Several retrospective studies report that a substantial majority of persons who commit suicide are in contact with a physician within hours to a few months before death.¹⁻³ These studies also indicate that most suicidal patients will admit to having self-destructive thoughts if asked directly.⁴ Thus, the contacts between suicidal persons and physicians should provide a significant opportunity for suicide prevention.

Several authors have contended that this potential for prevention is not well-utilized, however, because medical education generally fails to provide the physician with adequate knowledge about and sensitivity to the subject of suicide.¹⁻⁸ Our study sought to determine by questionnaire the level of knowledge about suicide among a selected group of primary-care physicians.

METHODS

The Suicide Knowledge Questionnaire (SKQ), previously developed by the senior author, was distributed to a selected sample of practicing physicians and, for purposes of comparison, to three groups of medical students. The American Medical Association's *American Medical Directory* (1973) was used to identify 755 active physicians in Missouri designating general practice or family practice as their primary specialty. This sample was reduced by random selection to 500 physicians. The medical student sample included 110 first-year, 110 second-year and 107 fourth-year students at a medical school in Missouri.

The SKQ answer sheets were returned anonymously. Additional information obtained from the physicians included (1) nature and duration of their postgraduate training, (2) length of time in practice, (3) characteristics of current practice and (4) experience with patient suicides. The data

obtained were coded for automated analysis using the SPSS program (*Statistical Package for the Social Sciences*). Answers to the 20 SKQ items were scored as either correct or incorrect. As a function of the automated program used, each correct answer was awarded one point and each incorrect answer received two points. The best possible SKQ score, thus, was 20 (all items correct), while the poorest possible score was 40 (all items incorrect).

RESULTS

Questionnaires were distributed to 327 medical students and 484 physicians (16 of the 500 questionnaires mailed to physicians were returned by the post office). Of the 811 SKQs distributed, 357 (44%) were returned completed; of these, 323 (39.8% of the total distributed) proved usable in the final data analysis.

The respondents obtained SKQ scores ranging from a best of 24 to a worst of 37. The average number of items answered correctly was 9.5, producing a mean SKQ score of 30.54 (*S.D.* = 2.23).

A questionnaire assessing knowledge of certain facts about suicide was distributed to a selected group of primary care physicians and, for comparison, to medical students at different levels of training. Statistical analysis revealed that the physician group did not perform as well as fourth- and second-year medical students overall, but the practical significance of this differential performance may be debated on grounds which are discussed. The questionnaire used in this study is appended and may be taken by the reader for self-assessment.

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TABLE 1
FREQUENCY DISTRIBUTION OF SKQ SCORES

No. of Items Correct	SKQ Score	Students			Physi- cians	All Groups Combined
		1ST YR.	2ND YR.	4TH YR.		
16	24	0	0	1	0	1
15	25	0	0	1	0	1
14	26	1	0	4	2	7
13	27	1	6	6	3	16
12	28	0	12	9	8	29
11	29	8	17	10	18	53
10	30	11	13	14	20	58
9	31	8	16	8	25	57
8	32	11	5	3	22	41
7	33	6	3	2	22	33
6	34	5	0	1	7	13
5	35	3	0	0	3	6
4	36	2	1	0	2	5
3	37	1	0	0	2	3
n		57	73	59	134	323
$\bar{X}$ SKQ score		31.53	29.78	29.17	31.14	30.54
S.D.		2.25	1.73	2.03	2.13	2.23

The distribution of scores and the group means and standard deviations are shown in Table 1. A chi-square analysis reveals a significant difference in the distribution of scores across the four groups ($X^2 = 80.31$, $df = 39$, $p < .0001$).

Table 1 shows that the best (lowest) mean SKQ score was obtained by the fourth-year medical students, followed by the second-year students, the practicing physicians and the first-year students. A series of *t*-tests reveals that the difference between the mean scores of the fourth- and second-year students is statistically non-significant, as is the difference between the mean scores of the practicing physicians and the first-year students. The mean scores obtained by the fourth- and second-year students, however, are both significantly lower (better) than the mean score of the practicing physicians and of the first-year students ($p < .001$ in each case).

DEMOGRAPHIC CHARACTERISTICS

The 134 physicians in the study received their degrees from 35 different medical schools. The largest number of respondents graduating from any one school was 22. No significant relationship was found between SKQ score and medical school attended. The 134 respondents had been in medical practice from one to 61 years, with the mean length of practice being 22.2 years. A relatively small but highly significant Spearman rank-order coefficient of correlation ($r_s = .37$, $p < .005$) was found between length of time in practice

and SKQ score, i.e., those physicians in practice for a longer time performed more poorly on the SKQ.

No significant relationship was found between SKQ score and location of practice, (urban, sub-urban, rural).

The mean number of patient suicides reported for the previous year was 0.47 (i.e., about one-half of the respondents had lost a patient to suicide during the year), and the mean number of patient suicide attempts for the same time span was 3.38. These figures are consistent with the estimate that suicide attempts are eight to ten times more frequent than successful suicides. Over their careers to date, the respondents reported a mean of 4.86 suicides. No significant relationship was found between the extent of the physicians' experience with suicidal patients and their SKQ scores.

COMMENT

The results show that the physicians answered correctly fewer than half (8.9) of the 20 SKQ questions while the second- and fourth-year medical students answered correctly slightly more than half (10.3 and 10.8). The difference between the mean SKQ scores of the physicians and of these students, however, while highly significant in the statistical sense, results from an actual average difference of fewer than two correct answers per questionnaire. The practical significance of this small difference in level of knowledge might well be challenged, particularly when the variation in clinical relevance of the questions is considered. For example, it is likely of little clinical significance that relatively fewer practicing physicians than students knew that suicide is the second leading cause of death among medical students (item 6) or knew that suicide accounts for between 20,000 and 30,000 deaths in the United States each year (item 9). However, differential knowledge of these facts contributed as much to the overall difference in SKQ scores between the groups as did differential knowledge of facts having considerably greater clinical relevance. Furthermore, even the relatively better performance of the students on SKQ items dealing with facts of high clinical relevance does not necessarily establish that the physicians were seriously deficient in knowledge of these facts. For instance, the knowledge that most people seriously considering suicide will admit it when asked directly (item 16) and that people who talk about suicidal feelings are no less at risk than those who do not verbalize their intent (item 18) could be of

great importance in effective intervention with the suicidal patient. While the second- and fourth-year medical students performed better on these items, it is of particular note that roughly two thirds or more of the practicing physicians also provided correct answers.

Perhaps the most reasonable answer to the question posed in the title of this paper is that the physicians who participated in the survey (and the medical students as well) proved to be neither as deficient in their knowledge about suicide as

some previous authors have suggested they might be nor as knowledgeable as they could or perhaps ought be. In view of the prevalence of suicide in this country and potential for effective intervention by physicians, efforts toward increasing physicians' knowledge about and sensitivity to the suicidal patient are clearly indicated. By publishing the present study, and particularly by offering the SKQ for self-assessment purposes, the authors are hopeful that a contribution has been made toward this end.

APPENDIX I

SUICIDE KNOWLEDGE QUESTIONNAIRE

Select the one best answer to each of the following questions:

1. In the United States, the suicide rate is:
 - a) higher for males than for females
 - b) higher for whites than for blacks
 - c) higher for Protestants than for Catholics or Jews
 - d) none of the above
 - e) all of the above
 2. The suicide rate in the United States is highest in the:
 - a) 15-24 year age group
 - d) 45-60 year age group
 - b) 25-34 year age group
 - e) over 60 year age group
 - c) 35-44 year age group
 3. The suicide rate for females is highest in:
 - a) single females
 - c) widowed females
 - b) married females
 - d) divorced females
 4. The suicide rate for males is highest in:
 - a) single males
 - c) widowed males
 - b) married males
 - d) divorced males
 5. In the United States, the four most common methods of suicide in descending order of frequency are:
 - a) gases, drug overdose, hanging, firearms
 - b) drug overdose, gases, firearms, hanging
 - c) drug overdose, firearms, hanging, gases
 - d) firearms, hanging, drug overdose, gases
 - e) firearms, gases, drug overdose, hanging
 6. In the United States, suicide among medical students is:
 - a) the same as the suicide rate for males of the same age group
 - b) greater than the suicide rate for college students
 - c) the second leading cause of death among medical students
 - d) to be expected
 - e) none of the above
 7. The suicide rate for physicians in the United States:
 - a) is more than twice that of the general population
 - b) is the same as the rate for males of the same age group
 - c) has increased steadily over the past seventy years
 - d) none of the above
 8. Compared with the United States as a whole, the overall suicide rate in Missouri is:
 - a) higher
 - b) lower
 - c) the same
 9. Of the approximate 1,922,000 annual reported deaths in the United States, suicide accounts for:
 - a) less than 10,000 reported deaths
 - b) 10,000-20,000 reported deaths
 - c) 20,000-30,000 reported deaths
 - d) 30,000-40,000 reported deaths
 - e) over 40,000 reported deaths
 10. In the United States, the average age of those who attempt suicide is:
 - a) 10-20 years
 - d) 40-50 years
 - b) 20-30 years
 - e) 50-60 years
 - c) 30-40 years
 11. A history of prior suicide attempt:
 - a) is unrelated to subsequent suicide
 - b) exists in four out of five suicides
 - c) increases the risk of subsequent suicide only if the attempt was serious
 - d) designates severe emotional disturbances
 - e) none of the above
 12. In the United States, the suicide attempt rate of females is:
 - a) greater than the suicide attempt rate for males
 - b) the same as the suicide attempt rate for males
 - c) less than the suicide attempt rate for males
- Answer True or False to each of the following questions:
13. Deaths by suicide as reported by physicians are probably under-reported by at least 25%.
 14. In United States' males, suicide by firearms exceeds all other methods combined.
 15. In United States' females, suicide by drug overdose exceeds all other methods combined.
 16. Most people who are seriously considering suicide are unwilling to discuss it and will deny it if asked.
 17. The average family physician will have ten to 12 suicides in his practice during his career.
 18. People who talk about suicidal feelings are less apt to make a serious or successful suicide attempt than those who do not talk about suicidal feelings.
 19. Suicide is rare in emotionally stable individuals.
 20. There has been no report of death by suicide in a child under the age of ten.

APPENDIX II
SKQ SCORING KEY

Item No.	Correct Answer	Item No.	Correct Answer
1	E	11	E
2	E	12	A
3	D	13	True
4	C	14	True
5	D	15	False
6	C	16	False
7	A	17	True
8	B	18	False
9	C	19	False
10	B	20	False

Note. Score 1-point for each item answered correctly, and 2-points for each incorrect answer. The total sum of points is the SKQ score. The SKQ questions and their answers were derived from several sources.^{1, 9-12}

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Human Scabies Infestations

(Continued from page 294)

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The Art of Repartee

Samuel Johnson: What is an oat? Indeed, sir, an oat is a grain which in England is generally given to horses, but in Scotland supports the people.

Lord Elibank: Very true, Mr. Johnson, and where else will you find such horses, and such men?

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LAWRENCE M. LAMPTON, M.D., JAMES D. MALTBY, M.D. and
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Potentially Lethal Complications of Artificial Airways

Case Reports

THE ADVENT of intermittent positive-pressure breathing apparatus stimulated development of cuffed endotracheal and tracheostomy tubes. Tracheal intubation has become an indispensable part of modern medical care. Trendelenburg (1871) described the first tracheostomy cannula with a low volume cuff. In view of constantly increasing complications with the high-pressure, low-volume cuffed tubes, Lomholt in 1967 described the high-volume, low-pressure cuff for intratracheal tubes.¹ In spite of the present widespread use of this cuff, complications due to prolonged tracheal intubation for mechanical ventilation are still seen. Two of the lethal complications are illustrated by the following cases in which tracheal intubation was used with prolonged mechanical ventilation.

CASE REPORTS

Case #1 A 55-year-old man, who had been seriously injured in a motor vehicle accident, was stabilized at a referral hospital and transferred to the University of Missouri Medical Center within three hours of his injury. He was in moderate respiratory distress with multiple rib fractures and a right hemothorax. There were multiple fractures of long bones of the extremities. Admission arterial blood gases while breathing room air revealed a PaO₂ of 46 torr, PaCO₂ of 25 torr and pH of 7.43. A thoracostomy tube was inserted into the right hemithorax, the extremity fractures were stabilized and supportive measures were instituted.

Despite marginal pulmonary status, he did not require tracheal intubation for the first 27 days of hospitalization. On the 28th day, a right pleuropulmonary decortication was performed, with postoperative endotracheal intubation and mechanical ventilation without significant respiratory improvement. A Swan-Ganz catheter was inserted and measured a pulmonary artery pressure of 49/20 mm Hg and a pulmonary capillary wedge pressure of 20 mm Hg. However, the patient's respiratory status still remained unchanged after correction of left ventricular failure and the initia-

tion of hyperalimentation. On the 40th day of hospitalization, a tracheostomy was performed below the fifth tracheal ring.

On the evening of the 47th day, a small amount of blood oozed from the tracheal stoma. No specific bleeding site was found. Four hours later (20 days after the institution of the artificial airway), the patient bled profusely from the tracheostomy site and occluded the airway. Despite vigorous suctioning and resuscitative maneuvers, he died. At autopsy, the site of arterial erosion was located at the tracheostomy cannula tip, which is similar to that in the previously reported series by Jones² (Fig. 1).

Case #2 A 65-year-old man with a history of heavy smoking and severe chronic obstructive pulmonary disease was admitted to the University of Missouri Medical Center in respiratory distress. Clinical examination revealed the presence of biventricular failure. Initial sputum cultures grew *Hemophilus influenzae*, *Escherichia coli* and *Pseudomonas aeruginosa*. Bronchodilator therapy, nasotracheal intubation within 24 hours and ventilator management, as well as therapy of his infection and heart failure, resulted in little improvement.

During the past decade, there has been a marked increase in the number of patients treated with prolonged mechanical ventilation through cuffed intratracheal tubes. Two patients with lethal complications secondary to tracheal intubation are reported with a discussion of the mechanism of injury, treatment and prevention. All physicians involved in the management of patients with prolonged tracheal intubation should become aware of these lethal complications.

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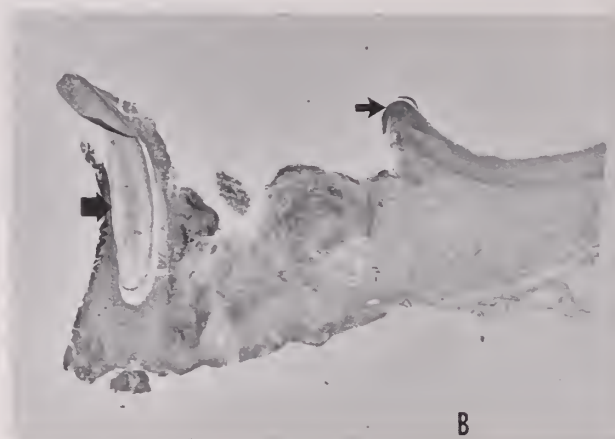


Fig. 1 (A) Gross pathology shows plane of tissue reflection (*open arrow*) and site of tracheal erosion (*black arrow*). A probe has been inserted through inferior thyroidal vessel as a landmark. (B) Photomicrograph of tracheal tissue demonstrates eroded vessel (*small arrow*) and tracheal cartilage (*large arrow*). A large hematoma lies between the vessel and the trachea.

On the 18th hospital day, a complaint of gastric distress associated with a 200 ml-500 ml loss of delivered tidal volume was corrected by adding 3 ml of air to the cuff of the endotracheal tube. An abdominal roentgenogram showed massive distension of the stomach and colon (Fig. 2).

On the following evening, the patient developed increased respiratory distress coincident with abdominal distension. Emergency fiberoptic bronchoscopy revealed a 4 cm rent in the posterior tracheal wall eroding into the esophagus. At surgery, the fistula was noted to extend from 4 cm to 8 cm above the carina, and the esophagus was diverted and ligated. A tracheostomy was performed with the placement of a Rausch tracheal tube distal to the level of the tracheo-esophageal fistula. A feeding gastrostomy tube also was inserted.

The patient's condition stabilized, but he was unable to be weaned off the ventilator. On the 28th hospital day, it once again became difficult to ventilate the patient. Bronchoscopy revealed widespread destruc-

tion of the tracheobronchial tree with partial collapse of the entire trachea and mainstem bronchi during inspiration. He died on the 36th hospital day.

DISCUSSION

Endotracheal intubation (for the purposes of this article, endotracheal intubation is defined as an artificial airway in the trachea) is now a well recognized and accepted aid in the treatment of respiratory failure and in the recovery phase of some forms of major surgery. Multiple minor and major complications due to prolonged intubation of the trachea are listed in the literature (Table 1). Sore throat,³ membranous tracheitis and granuloma formation^{4,5} represent certain of the minor complications. Complications related to the tube itself include cuff herniation,^{6,7} dysphagia and aspiration.⁸ Major complications include vocal cord paralysis,⁹ persistent tracheal dilatation,¹⁰

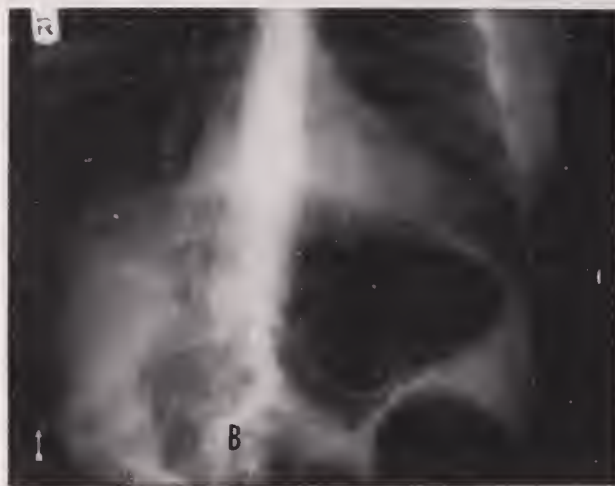


Fig. 2 (A & B) AP roentgenograms of chest and upper abdomen show massive distension of stomach and colon. Note distended endotracheal tube cuff.

tracheal stenosis,^{11, 12} tracheo-innominate artery fistula^{2, 11, 13-15} and tracheo-esophageal fistula.¹⁶⁻¹⁹

The first case is an example of tracheo-innominate artery fistula, which occurs in 0.5% to 0.6% of all tracheostomies.¹³ The time between the tracheostomy and the manifestation of this complication varies from one to ten weeks, with the peak incidence occurring in the first 21 days.² The complication developed in the patient reported here on the seventh day of tracheostomy.

Minor bleeding and pulsation of the tracheal cannula are recognized as early diagnostic signs. Five of ten patients reported in Jones' series had some evidence of minor bleeding prior to the diagnosis.²

The mechanism of injury appears to be the erosion of the innominate artery from direct pressure anteriorly by the tip of the cannula against the artery. Autopsy examination revealed this to be the etiology of bleeding in our patient. Etiological factors described include low tracheostomy with placement of stoma below the third tracheal cartilage, malfitting tracheal cannula with excessive anterior curvature, abnormal positioning of the neck, particularly in patients with neuromuscular disorder, and excessive traction of the tracheostomy cannula by the tubes connected to the respirator.² The position of the neck and the traction on the cannula may have been the contributing factors in this patient. High-pressure cuffs may be more likely to erode through the tracheal wall and, therefore, they must not be used in ventilatory support. Most of the intrinsic factors which would adversely affect wound healing in general have been implicated as predisposing to increased tracheal damage. These include tracheal infection,¹⁴ glucocorticoid administration,¹¹ hypotension¹¹ and sepsis.¹⁵ Our patient was on prolonged ventilatory support and was hypotensive due to multiple trauma.

A key point to be made is that a high index of suspicion is necessary for early diagnosis. The initial bleeding may be very minor ("sentinel bleed") but may soon be followed by massive hemorrhage, aspiration and airway obstruction as occurred in our patient. As an immediate and temporary measure, one should inflate the tracheostomy balloon if it is deflated and hyperinflate it if it is partially inflated. If bleeding persists, the method described by Utley of incising the skin at the jugular notch and compressing the innominate artery anteriorly with the finger should be used.² Tracheal suctioning is performed as needed, and cough is controlled by sedation. De-

TABLE 1
COMPLICATIONS OF ARTIFICIAL AIRWAYS
USED FOR PROLONGED MECHANICAL
VENTILATION

	Reference
Major:	
Vocal cord paralysis	(9)
Tracheal Stenosis	(11, 12)
Cuff stenosis	
Stomal stenosis	
Persistent tracheal dilatation	(10)
Tracheo-innominate artery fistula	(2, 11, 13, 14, 15)
Tracheo-esophageal fistula	(16, 17, 18, 19)
Minor:	
Sore throat	(3)
Membranous tracheitis	
Granuloma	(4, 5)
Complications related to endotracheal tubes	(6, 7, 8)
Cuff herniation	
Obstruction by secretions or granulation tissue	
Dysphagia and aspiration	

finitive management requires partial sternotomy to expose the injured vessel and ligation of the innominate artery. Neurological sequelae due to the procedure are rare.²

The mortality rate of tracheo-innominate artery erosion, if not treated surgically, approaches 100%. If patients who are improperly resuscitated are excluded, 25% will survive.² It appears that this lethal complication can be prevented by a high position of the tracheostomy, careful tube and neck positioning and avoiding excessive pressure by the cuff due to hyperinflation.

The second case illustrates tracheo-esophageal fistula (TEF), another potentially lethal complication of artificial airways. The incidence of TEF is 0.5% of 5,772 patients reported by Harley in 1972.¹⁶ The etiologies of the TEF from cuffed tracheal tubes are both mechanical and biological. Overinflation of the endotracheal tube balloon is the most important mechanical factor, especially when a nasogastric tube is concurrently in place. This combination was noted in 21 of 22 patients.¹⁷ The morbidity from cuffed tubes is directly related to the duration of the intubation.¹⁷ Biological depletion in the form of weight loss, anemia and hypoalbuminemia are predisposing factors. Poor nutrition, steroids and local ischemia makes the trachea vulnerable for the injury as in this patient.

Clinical findings which usually lead one to suspect development of TEF are (a) bubbling heard

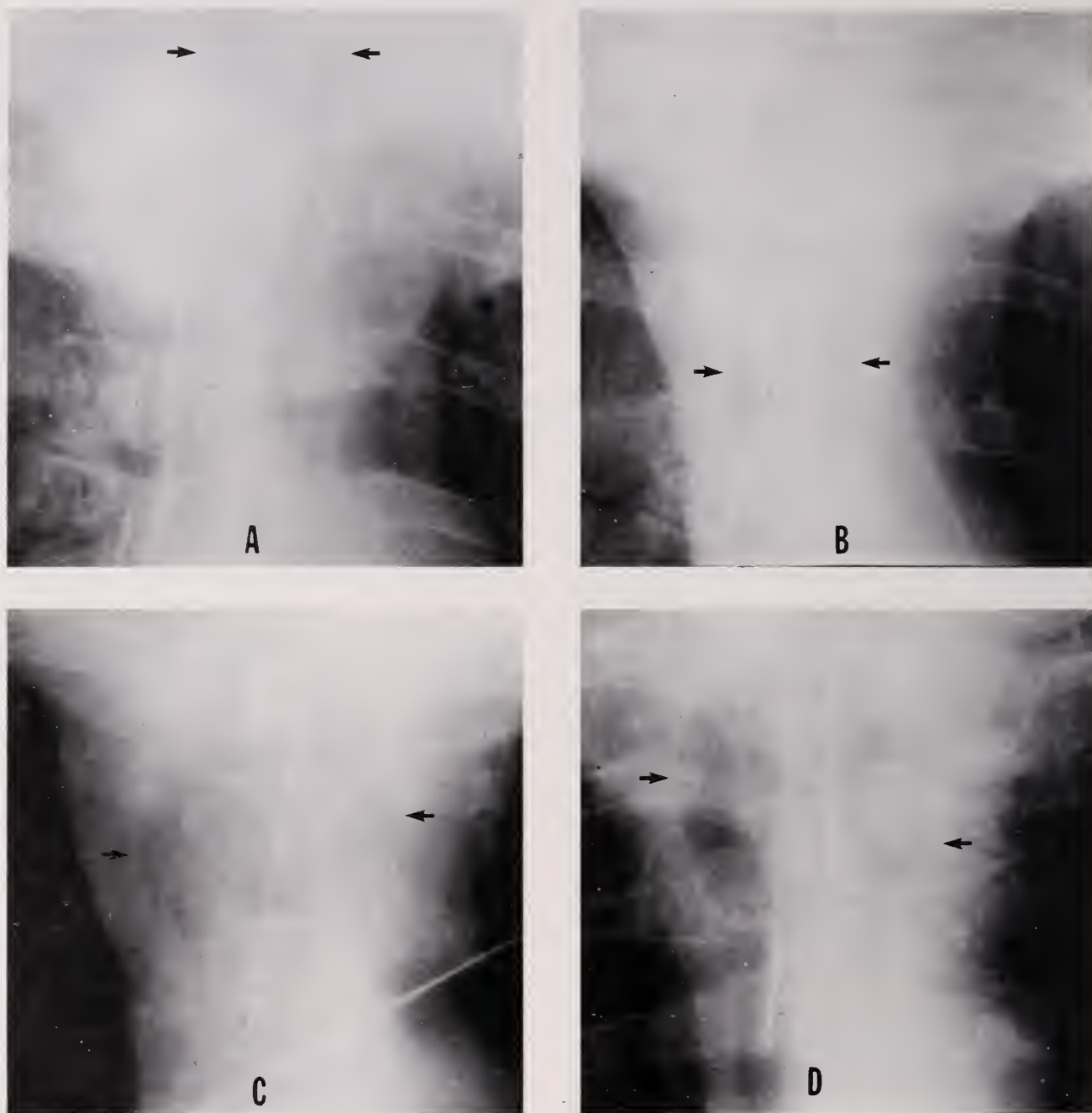


Fig. 3 AP roentgenograms demonstrate that (A) initial intubation was high in position with normal cuff/trachea (C/T) ratio and that four days later, (B) cuff can be seen and C/T ratio is 120%. Roentgenograms eight and 20 days later (C & D) show a C/T ratio of 214%. (Arrows point to outline of the cuff.)

over the stomach synchronous with the ventilator; (b) air leak when the cuff is sealed with gurling in the throat and gastric distension; (c) abnormal migration of the suction catheters; and (d) the visualization during esophagoscopy of methylene blue previously instilled in the trachea.¹⁷ This patient demonstrated the air leak and gastric distension which made us suspect TEF. The definitive diagnosis requires tracheoscopy or bronchos-

copy to visualize the nasogastric tube in the esophagus through the fistula, as seen in this patient on emergency bronchoscopy. Other definitive methods are esophagoscopy with the visualization of the tracheal cannula and radiologic demonstration of the fistula by cineesophagography or tracheography.¹⁷

The usual site of TEF is between the sixth cervical and the first thoracic vertebrae. The ear-

liest appearance of the fistula is usually seven days with an average of 30 days after artificial airway is inserted. Our patient developed the symptoms 18 days after intubation of the trachea.

Treatment requires surgical repair of the TEF. The method of surgery is well described by Grillo *et al.*¹⁸ None of the patients with documented TEF recovered without an operation. In the series by Thomas *et al.*, 11 patients had the operation and eight survived.¹⁷ Three patients died six, 12 and 15 days respectively after operative closure of the TEF. In our case, the esophagus was diverted, a tracheostomy was performed and feeding gastrostomy was established, after which his condition temporarily stabilized.

Prevention of these potentially lethal complications from prolonged tracheal intubation is one of the most important measures during ventilatory support. Both of the above mentioned complications may result from excessive pressure (greater than 25 mm to 30 mm Hg) by the tracheal tube cuff. Soft-cuffed intratracheal tubes, though considered safe, can produce surprisingly high mucosal pressure if the pressure or volume used to inflate the cuff is not controlled. The volume of air necessary to raise the cuff from the point of seal to an unsafe pressure (greater than 30 mm Hg) is only 2 ml to 3 ml.¹⁹

Serial chest radiography is essential in the monitoring of endotracheal or tracheostomy tube cuffs. In general, one should barely see (if at all) any evidence of the cuff on x-rays. Khan *et al* pointed out the importance of the cuff/trachea (C/T) ratio measurement with the tracheal reference point taken between the clavicles. They found that all the cases of severe tracheal damage in 135 intubated patients occurred with C/T ratios of 150% or over. (They recommend that if this ratio is 150%, special effort be made to keep the pressure below 25 mm Hg.²⁰) In the second case, the C/T ratio exceeded 200% for at least 12 days (Fig. 3).

It should be policy in the radiology department to notify attending physicians on all cases in which a tracheal tube cuff is clearly visualized on the radiograph. The cuff pressure can be easily measured at the bedside and corrected if necessary. We also have found that noting the volume initial-

ly required to inflate the cuff to produce minimal leak approach¹² and keeping that volume constant has dramatically reduced the number of over-inflated cuffs discovered.

In conclusion, tracheo-esophageal fistula and tracheo-innominate artery fistula occur in a small percentage of patients with prolonged mechanical ventilation. These complications can be prevented by (a) maintaining proper positioning of the artificial airway to avoid erosion of the trachea by the tip of the artificial airway and (b) close monitoring of the cuff inflation pressure and C/T ratio to avoid excessive pressure on the tracheal mucosa.

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'Metastasizing Leiomyoma' Occurring As a Mediastinal Mass

Case Report

THERE ARE MULTIPLE CASE REPORTS of so-called "benign metastasizing leiomyoma" discovered as nodules in the lungs at variable times after removal of a uterine leiomyoma. These are now generally considered to be well-differentiated grade 1 leiomyosarcomas.

We report a case of a solitary, large anterior mediastinal mass appearing 13 years after an hysterectomy. This mass showed the same histologic characteristics as in other reported cases. The possible origin of such a tumor is discussed.

CASE REPORT

A 64-year-old white woman complained only of diarrhea for three weeks. She denied all chest symptoms. She was a moderate smoker. She had fallen nine years before and fractured eight ribs. She also had had an hysterectomy for "fibroids" 13 years before.

PA and left lateral views of the chest (Fig. 1) showed a lobulated mass more than 10 cm in diameter in the mediastinum contiguous with the left heart border and displacing the anterior extrapleural or "retrosternal line" posteriorly by 1 cm. By both the Felson¹ and Heitzman² mediastinal classifications, the mass would be in the anterior mediastinal compartment. The posterior and left cardiac silhouette were obscured by the mass. Its lobulated shape and the posterior displace-

ment of the anterior extrapleural line placed the mass in the mediastinum rather than in the lung radiographically. An unavailable 1977 chest film was reported as normal.

Physical and routine laboratory examinations were noncontributory. Results of upper and lower gastrointestinal examinations, including esophagus studies, were within normal limits. Pulmonary function studies showed moderate obstructive impairment of small airway function. Fiberoptic bronchoscopy was normal. Brushings and washings were negative for tumor and pathogens.

Ultrasound examination of the mass from the anterior left aspect of the thorax (Fig. 2) showed a solid mass with at least two fluid-containing, apparently smoothly-marginated cystic areas measuring approximately 3 cm in diameter. These findings suggested a dermoid, a solid tumor mass with either central liquefaction or large vessels, or a cyst with hemorrhagic clot formation.

Thoracotomy was done. A mass measuring 14 cm x 9.5 cm x 7 cm was found in the left anterior mediastinal compartment with a 3 cm attachment to the pericardium and attachment to, and confluence with, the anterior aspect of the lingula. The lesion was removed intact with a 1 cm free margin in the anterior lingula. The mass was multiloculated, hemorrhagic and cystic on section and was covered with a thick, opaque, white membrane.

Microscopic sections revealed a spindle cell tumor composed of interlacing bundles of smooth muscle cells and prominent vascular channels. Electron microscopy confirmed the smooth muscle origin of the tumor.

The microscopic appearance of uterine tissue removed 13 years earlier and of the present lesion each showed a very well differentiated grade 1 leiomyosarcoma. Both sets of slides were reviewed by W. R. Hart³ from the University of Michigan who reported that mitotic figures in the uterine tumor exceeded five per ten high power fields in the most active areas, but were much more sparse in the mediastinal tumor.

DISCUSSION

Sporadic case reports of histologically benign nodules in the lung, following hysterectomy for so-called "uterine leiomyoma," have been re-

The authors report a case of a large anterior mediastinal leiomyoma with an identical histology to that of a uterine leiomyoma removed 13 years previously. Although nodules to the lungs from such uterine tumors have been reported, a single, cavitating mass in the mediastinum with this histology appears unique.

Dr. Maltby is Associate Professor of Radiology and Dr. Knight is Assistant Professor of Radiology, University of Missouri Medical Center. Dr. Misra is Instructor in Pulmonary Medicine, Harry S Truman Veterans Administration Hospital.

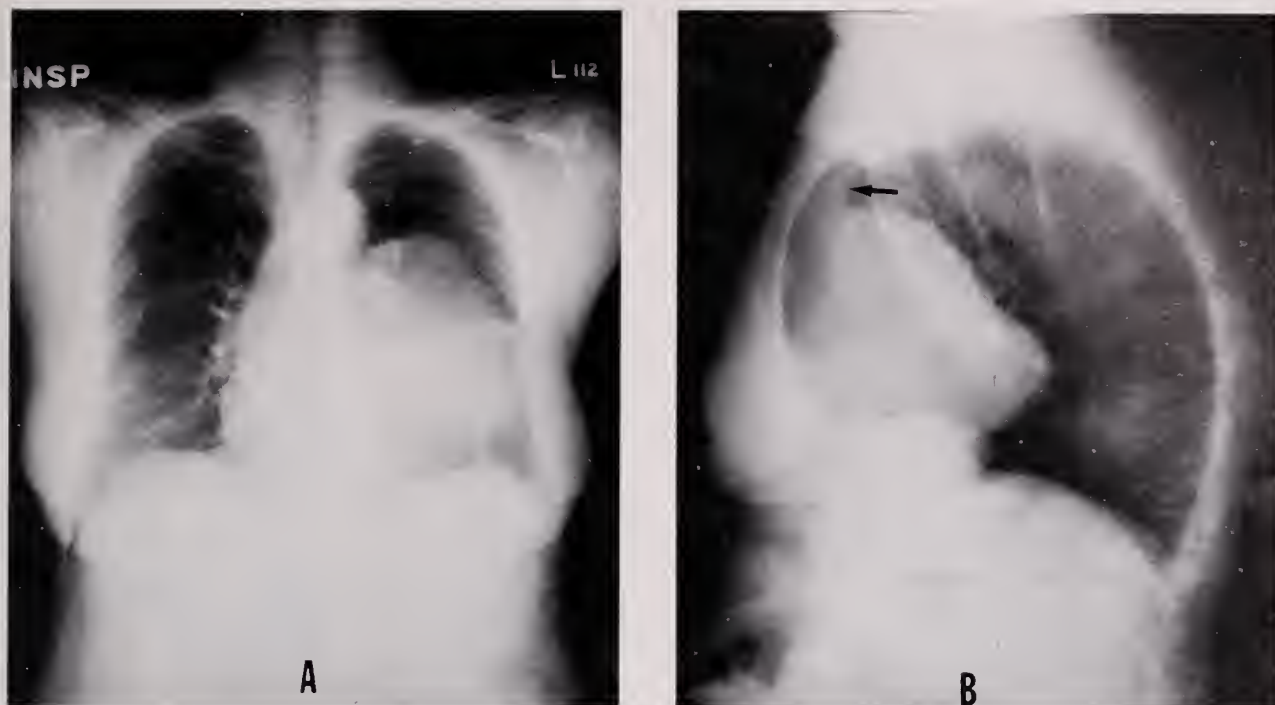


Fig. 1 (A) PA and (B) left lateral views of chest show large left anterior mediastinal mass obscuring left and posterior aspects of heart. Anterior extrapleural line (arrow) is displaced posteriorly 1 cm, confirming location of mass in mediastinum.

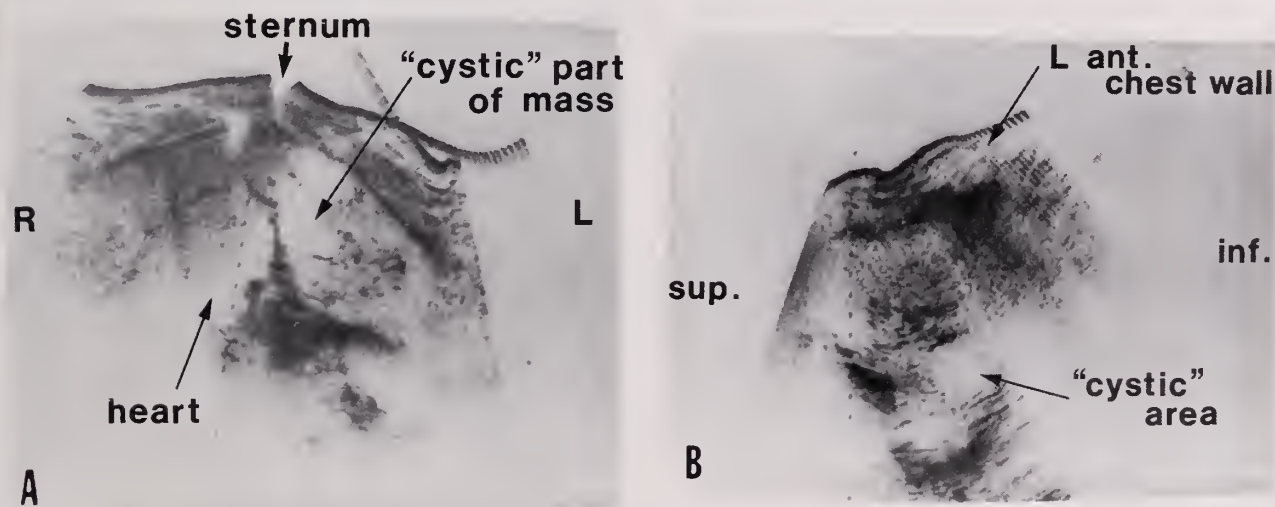


Fig. 2 (A) Transverse scan. Some of large mass is interposed between sternum and heart. Note thin, smooth posterior wall of "cystic" area of mass. (B) Longitudinal scan. Note posterior lobulation of mass, which corresponds well with configuration as seen on lateral chest radiograph.

ported through the literature as far back as the turn of the century.⁴ The lung lesions have been thought by some to be "fibroleiomyomatous hamartomas" developing coincidentally with benign leiomyomas of the uterus,⁵ whereas most others attach a causal connection between the histologically identical tumors in the uterus and the lungs. The literature was reviewed along with a 1976 case report by Bachman and Wolf.⁶ Twenty-four cases with the basic leiomyomatous histol-

ogy were reviewed. Four of these did not document a uterine tumor but did occur in middle-aged women. They conclude, as do others,^{4, 7} that all these lesions should properly be considered as well differentiated leiomyosarcomas.

Perhaps the most interesting aspect of this case is the speculation as to the origin of this tumor. The frequency of dermoid-type tumors in the anterior mediastinum is a well documented fact^{1, 2} which would favor the independent origin

hypothesis.⁵ Since this lesion was inseparable from the lingula, the tumor could have had its origin subpleurally in the anterior lingula. Though the lung lesions are generally multiple and small, four cases of solitary tumors of this histology have been reported.⁶ A single patient with extensive lung lesions and lymphatic invasion showed a cavitated right upper lobe 13 cm x 12 cm x 12 cm mass.⁴ The third possible origin of this tumor is that of metastasis to an anterior mediastinal lymph node. Reported cases of extensive recurring tumors throughout the retroperitoneal space⁸ and of metastases along the periaortic chain associated with pulmonary lesions⁹ document lymph node spread of this tumor.

Though long-term follow-up is not available on this case, prognosis in metastasizing well differentiated leiomyosarcoma is generally good. However, many cases have shown continued progression radiographically.⁶ Hart and Billman³ reviewed 28 cases of uterine leiomyosarcoma and found an excellent correlation with mitotic figures per ten high power fields (MF/10HPF). Thirteen cases with less than 4 MF/10HPF showed no recurrence, whereas 15 patients with greater than 6

MF/HPF all died of the disease. Silverberg,⁷ in review of 34 cases of leiomyosarcoma, felt that postmenopausal status was the single most important factor in prognosis along with a constellation of factors including black race, infiltrating tumor margins, high mitotic rate and blood vessel invasion. Though review of the uterine slides did show some aggressive areas with counts over 5 MF/HPF, the benign appearance of the mediastinal lesion would seem to give this patient a favorable prognosis.

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In Memoriam

Manuel E. Green, M.D., 942 Guelbreth, Creve Coeur 63141; a graduate of St. Louis University, 1931; member of St. Louis Metropolitan Medical Society; age 75; died March 1, 1980.

A. R. Rao, M.D., 505 Armory, Fredericktown 63645; a graduate of Andhra Medical College, 1957; member of Mineral Area Medical Society; age 45; died March 25, 1980.

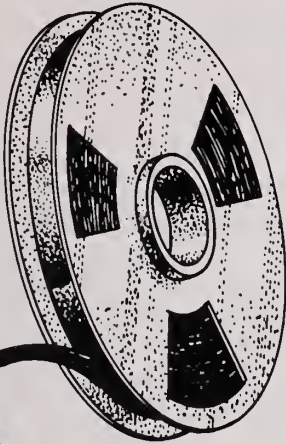
Orval R. Withers, M.D., 114 Cypress, Lee's Summit 64063; a graduate of Northwestern University, 1926; member of Jackson County Medical Society; age 82; died April 18, 1980.

Mark Dodge, M.D., 7909 Bristol Court, Shawnee Mission, Kan. 66208; a graduate of the University of Kansas, 1941; member of Jackson County Medical Society; age 64; died April 19, 1980.

William H. White, M.D., 950 Francis Pl., Suite 219, Clayton 63105; a graduate of St. Louis University, 1934; member of St. Louis Metropolitan Medical Society; age 65; died April 22, 1980.

John Michael Collins, M.D., 6928 Hampton Ave., St. Louis 63109; a graduate of St. Louis University, 1934; member of St. Louis Metropolitan Medical Society; age 65; died April 25, 1980.

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Second, other MSMA members.

The first right to acquire these shares goes to the noteholders who may exchange their fully paid notes for shares and, by so doing, receive further preemptive rights to buy all the remaining shares for cash during a 60-day time period that will end on July 28, 1980.

The success of this offering will allow meeting several of the original objectives set out by the MSMA when MOMEDICO was formed, as follows:

1. Create a financially strong stock insurance company that is controlled by the MSMA and will provide a stable, available market for medical professional liability insurance in Missouri and the financial success of the company to benefit MSMA and its members.
2. Offer MSMA members direct ownership in the company.
3. Provide economic benefit to the MSMA Subordinated Noteholders in recognition of their contributions to the capitalization of the company. These benefits include:

- a. Availability of insurance; for many a *critical need* in the first years of MOMEDICO.
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- e. Opportunity to benefit from directing profits to controlling premium needs or return of dividends. Indirect benefit is the favorable impact on competing commercial companies who have reentered this market at reduced rates.

Other MSMA members will receive a prospectus at the end of the initial 60-days if any shares remain unsold. Burns, Pauli and Co., Inc., is the agent for this offering and can be contacted by calling 314-436-7575 (St. Louis). They are available to answer your questions.

The MSMA encourages you to consider the very real long-term benefits that the continued success of MOMEDICO can provide for Missouri physicians. Please give this your serious consideration and support.

President's Message

In 1974, the patients, physicians and hospitals of Missouri were subjected to an unwarranted, erroneous, borderline malicious and, perhaps, premeditated attack by certain carriers of medical professional liability insurance.

The claims of great loss by the Argonaut Insurance Company, the Aetna Insurance Company, the U.S.F. & G. and others resulting from settlement of claims of medical malpractice and medical negligence were totally unfounded. These claims were proved false by the companies' own statements of profit and loss as well as by independent investigations on the part of the *Wall Street Journal*, the late Department of Health, Education and Welfare and *Medical Economics*. Few of these insurance companies had the decency to retract or to correct the damages created by their original allegations. In fact, they continued the exploitation on medical professional liability insurance coverage until sometime in 1978.

The Missouri State Medical Association in 1974 undertook the formation of a policy, within Missouri, which would provide available, quality professional liability insurance in medicine at a cost determined by local experience and not by hysteria or economic fancy.

MOMEDICO, a wholly-owned stock company, is now with us, and the sale of its stock was approved by the Security and Exchange Commission the last week in May. MOMEDICO stands ready, announced in clear, loud tones, to be the medical professional liability insurance company of Missouri. It should remain within the ownership of the medical community of Missouri. It should be controlled by the medical community of Missouri for the patients, physicians and hospitals of Missouri.

MOMEDICO should be protected from the eventuality of being purchased by non-medical interests who may want to profit from or even control this insurance company.

If you, the owners and holders of some 531 subordinated notes will see that those notes are paid up and converted to ownership of stock, there will be little chance of abdicating the control to any outside interests.

Take it personally that your individual support *UP FRONT* will assure Missouri of a medical professional liability insurance company which will not become victimized by outside interests as was the case of what is now being called the great insurance raid of 1974-1978.

Support MOMEDICO with membership, insurance premiums and stock purchases for a more durable and a more professional insurance environment for the patients, physicians and hospitals of Missouri.



Richard V. Bradley, M.D.



MSMA Auxiliary

Auxiliary Accomplishments

One of the most exciting aspects of our MSMA Auxiliary convention is hearing and reading the county auxiliary reports of activities of the past year. So many things are going on around the state that I want to share a few of them with you.

CPR seems to have been the outstanding health project this past year. Twelve county auxiliaries reported projects in CPR, some of them quite extensive. Cape



Mrs. Donald A. Fakhoury
President

Girardeau instructors certified 210 sophomore students in one high school with plans to carry out the program in the other two high schools. Auxiliary members in many counties are instructors training other auxiliary members as well as the community. Money was raised in several counties to purchase CPR equipment.

Scholarship aid to nurses, medical students and other medically-related fields was mentioned in eight county reports. Most also raised funds for the Missouri State Medical Foundation and AMA-ERF. This year's benefit auction at the state convention raised more than \$9,000 for these two funds.

In legislation, activities ran from programs about pending legislation to contact with legislators in response to Legislative Alerts. Several reports mentioned meetings with the medical society to which the legislators were invited. In this election year, more needs to be done in MMPAC family and sustaining memberships.

Membership was emphasized in the county auxiliaries with many activities to involve new members. Wearing name tags at meetings, with color-coded tags for new members, was a helpful tool in larger auxiliaries. Butler-Ripley-Wayne-Carter Auxiliary developed a new member packet with information about the community to go along with personal visits by at least two members of the membership committee.

In St. Louis and Kansas City, the auxiliaries helped with massive community-wide Health Fairs sponsored by local radio/TV stations, Blue Cross and the Red Cross. Health projects on Shape-Up-for-Life and nutrition were varied. In Boone County, the nutrition program was geared to the "under 65's and the over 65's." Current nutritional books were purchased for the Boone County Library.

Hospice Care, services to the elderly, Meals-on-Wheels, Doctors' Day, International Health collections, Red Cross Bloodmobile, Mr. Yuk Poison Prevention and countless others are all avenues of service by auxiliary members.

All these activities are meant to help the MSMA and our communities. We would appreciate your comments and suggestions.



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Please see last page for brief summary, including warnings, precautions, and adverse reactions.

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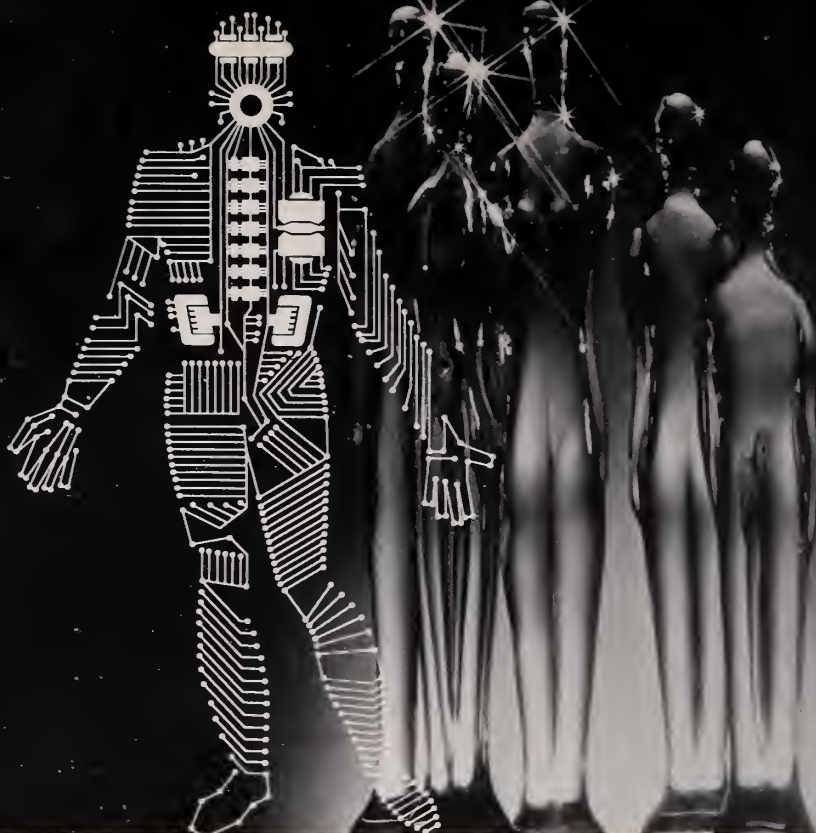
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Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.

Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.

Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

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Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

spontaneously occurring retinal degeneration in albino rats treated for 6 months or longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness and sedation. Constipation, dizziness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug, some of them rarely. (In some instances an exact causal relationship has not been established.) These include: Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormalities in liver function tests; one report of possible drug-induced hepatitis without icterus; and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chloral hydrate and papaverine hydrochloride. Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase; congestive heart failure, Raynaud's phenomenon; vivid dreams or nightmares, insomnia, other behavioral changes; nervousness, restlessness, anxiety and mental depression. Also rash, an angioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness, itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecomastia, weakly positive Coombs' test, asymptomatic electrocardiographic abnormalities manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished or absent reflexes and vomiting followed the accidental ingestion of Catapres (clonidine hydrochloride) by several children from 19 months to 5 years of age. Gastric lavage and administration of an analeptic and vasopressor led to complete recovery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-minute intervals usually abolishes all effects of Catapres (clonidine hydrochloride) over dosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

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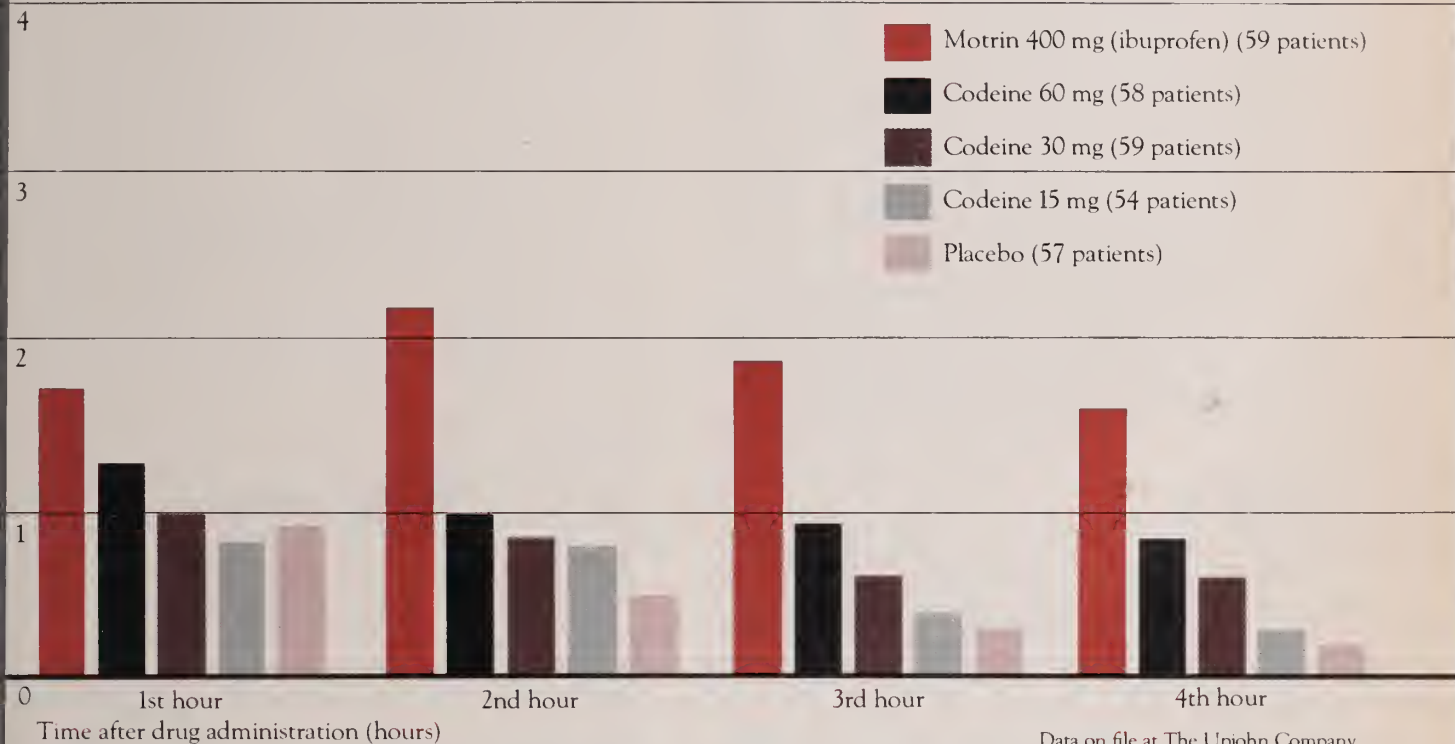


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Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

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Drug interactions. Aspirin used concomitantly may decrease Motrin blood levels.

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*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

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EDITORIAL

THE ART OF MEDICINE

(The following is a guest editorial by Drs. Richard Sutton, Jr. and Morris Waisman which appeared in Cutis, Vol. 25, April, 1980. The editorial contained so much good sense, it was thought that it should be reprinted by MISSOURI MEDICINE. The authors and the editor of Cutis have kindly granted their permission. — Ed.)

A patient must be satisfied with the physician, the method of treatment and the result. The art of medicine embraces progressively improving skills in a deliberate and continued striving for excellence. Art evolves over the years, developing a harmony of clinical maturity, self-confidence and human warmth.

Educationally, any physician would benefit by experiencing an illness which necessitated dependence on another physician. The firsthand knowledge thus gained of the patient's point of view would be of incalculable value. It would teach him to appreciate what a patient expects of his doctor: uninterrupted attention, kindly tolerance of his apprehensions and straightforward answers to his questions. He would resent a hurried, impersonal, impatient, uncommunicative, casual manner no matter how scientifically superior the maestro might be who treated him.

In an issue of such gravity as his health, with specters of suffering, disability, expense, lost time, even death, every patient needs and deserves evidence of sincere concern. The patient who leaves his physician's office with questions unanswered and fears unallayed is disappointed, confused, angry and ill served. His disease may be trivial, but his disaffection has been kindled and is ready to blaze.

It is a patient's prerogative to ask questions about his disease and its prognosis and to receive frank and plausible explanations. The perceptive physician will sense the patient's anxiety, distress and horror which impelled his visit, and he should address these feelings informatively. Reassurances must, however, be kept within bounds of probability; they should not inspire fanciful, unrealistic expectations. Prudently, one tries to insure that the patient construes no elaborate misinterpretations.

Patients are disenchanted by airy, superior dismissal of their complaints. They desire a response in keeping with the concern they nurture. Levity and flippancy are inexcusable. No disease is funny to the patient who

has it. Especially when dealing with adolescents and the aged to belittle a patient's problem is callous and cruel. The physician's tone and comments must never be humiliating, derogatory, patronizing or hypercritical.

Disputation has no place in the medical interaction. Antagonism and hostility are not mollified by bickering, but rather by a calm, earnest attempt to be helpful, so presented that the patient cannot miss discerning who is on his side. As for the perverse noncomplier, the physician must decide if the motive is defiance, anger or plain indifference and then react appropriately, without combativeness. The mature physician cannot be goaded into losing his composure. Outwardly, he maintains his dignity and trusts that "a soft answer turneth away wrath." When the clinical course is troublesome, he anticipates the need for another opinion and is well advised to suggest consultation before the patient or the family does so.

Fees should be fair and flexible. Good practice is free of the taint of venality. The patient who believes he has been rendered honest service will pay for it willingly, if he can.

In summary, the art of medicine requires persistence and purpose in the steady acquisition of a skill, tact, courtesy, and integrity in the relationship with patients, conscientious devotion to detail in the examination, and sensitivity attuned to the patient's fears and expectations. The artful care of the patient encompasses clinical proficiency and an intuitive comprehension of human behavior. Unfortunately, no physician succeeds in pleasing all of his patients all of the time. None of us in a lifetime attains perfection in the art of medicine, but every thoughtful practitioner remains dedicated to that ideal.

RICHARD L. SUTTON, JR., M.D.
MORRIS WAISMAN, M.D.

Cutis: Guest Editorial
April, 1980

There is still a good deal of human nature in man.

—Charles Kingsley.

"At Last," 1871

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

"GUIDELINES FOR PRESCRIBERS of Controlled Substance," a series of suggested principles approved by the AMA and six other health organizations, were issued April 7 by the federal Drug Enforcement Administration. The principles were developed by the DEA's Practitioners Working Committee, which was formed in 1974 and includes the AMA, American Dental Association, American Nurses Association, American Osteopathic Association, American Podiatry Association, American Veterinary Medical Association, and the National Institute on Drug Abuse. The voluntary guidelines were approved by the AMA House of Delegates at the 1979 Interim Meeting. Copies of the guidelines have been sent by the AMA to state, metropolitan, county and specialty societies. Additional copies are available from Department of Mental Health, AMA Headquarters.

A NEW AMA BOOK on the impaired resident physician is the result of a study begun in 1976 by the AMA Resident Physician Section's Work Group on Physician Well-Being. The 125-page *Beyond Survival* reviews the literature, describes model programs for helping and preventing impairment, lists national, state and other resources, and contains an annotated bibliography. *Beyond Survival* also describes techniques for impairment identification, confrontation, rehabilitation and reentry. Cost is \$5 for 1-10 copies; \$4 for 11-49; \$3.75 for 50 or more; and \$7 for foreign orders. Orders must be prepaid. Write OP-083, AMA Order Dept., P.O. Box 821, Monroe, Wis. 53566.

MOST OF THE PATIENT RIGHTS currently being considered for inclusion in the Mental Health Systems Act of 1979 are already an integral part of good medical practice, the AMA said in letters to the chairmen of the Senate Committee on Labor and Human Resources and House Subcommittee on Health and Environment. The AMA opposed enactment of the "bill of rights" because it would encourage an adversary posture,

invite extensive litigation, conflict with established state law and procedures and run counter to the recommendations of the President's Commission on Mental Health. The Association urged that Title III of the act, which embraces the bill of rights and legal advocacy provisions, be deleted and that the legislation be amended to bring federally assisted mental health programs under the clinical direction of physicians.

AMERICANS MAY GET THE WRONG message from proposed legislation that would reduce federal penalties for possession of marijuana, the AMA told the chairmen of the House and Senate Judiciary Committees. "The Congress must be especially careful not to convey to young people and their parents the message that society now sanctions marijuana use," the AMA said. "Reducing federal penalties for possession of this drug can in no way reduce the health hazards attendant on its use." The legislation before Congress is the omnibus criminal code revision (S 1722-HR 6233). The AMA noted that a recent National Institute on Drug Abuse report confirms the validity of the concern expressed by the AMA last year when it reported increased use by young people and the possibility that marijuana use may be related to pulmonary damage and increased risks of cancer.

OPINIONS AND ATTITUDES about AMA membership will be asked of 10,000 physicians in a survey being conducted for the AMA Office of Membership Development by the AMA Department of Survey Design and Analysis. The four-page questionnaire was mailed in April to a sample of member and nonmember physicians, including 2,000 women physicians and 2,000 foreign medical graduates. Physicians are urged to cooperate in completing and returning the questionnaires. Participation will give many physicians an opportunity to be heard at the national level of organized medicine. All responses will be handled in strict confidence and only aggregate results will be used.

Mrs. Donald Fakhoury Installed as President of MSMA Auxiliary

Mrs. Donald Fakhoury, Kansas City, was installed as president of the MSMA Auxiliary at the annual convention held in conjunction with the MSMA Annual Session at Crown Center Hotel in Kansas City.

Other Auxiliary officers elected for 1980-1981 are Mrs. Jerry Meyer, Concordia, president-elect; Mrs. William Goodson, Jr., Kansas City, first vice-president; Mrs. Vernon Jackson, Fulton, second vice-president; Mrs. Eugene Henschel, St. Louis, third vice-president; Mrs. Clyde V. Martin, Shawnee Mission, Kan., fourth vice-president; Mrs. Donald C. Sanders, Kansas City, recording secretary; Mrs. James Haddock, St. Louis, treasurer; Mrs. James Shaw, Hermann, auditor; Mrs. Carl Slaughter, Kansas City, corresponding secretary; and Mrs. William R. McPhee, Kansas City, parliamentarian.

Mrs. Fakhoury has served as president of Clay County Medical Society Auxiliary and as a MSMA Auxiliary board member, chairing the members-at-large, community health, AMA-ERF, membership, archives and courtesy committees.

A native of Lawrence, Kan., she accompanied her parents to Egypt, where her father taught at the University of Alexandria as a Fulbright professor in chemistry. It was in Egypt that she completed her senior year in high school and, also,

met her future husband.

After her graduation from Kansas University with a major in entomology, Dr. and Mrs. Fakhoury were married and returned to Egypt where Mrs. Fakhoury taught at the United Presbyterian Mission School. They returned to Kansas City in 1958.

Active in community affairs, Mrs. Fakhoury has served as secretary of the Clay-Platte Voluntary Action Committee and is past-president of the North Kansas City Memorial Hospital Auxiliary. She is a member of the USA General Board of American Baptist Churches; the board of the International Ministries and its representative to the national board of American Baptist Women; the board of managers of the American Baptist Churches of the Great Rivers Region (Mo., Ill.); and chairman of the personnel committee and past-president of the American Baptist Women of Area V (Mo. and Alton, Ill.) She is currently on the board of trustees of her local church, a Sunday school teacher, choir member, substitute organist and the church clerk, a position she has held for 13 years.

Dr. and Mrs. Fakhoury are the parents of three sons: Steve, 19; Mark, 16; and John, 14. Dr. Fakhoury is in family practice in Kansas City.

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MSMA Members Receive Physician's Recognition Award

Fifty-five MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period March 3-April 10, 1980.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in *MISSOURI MEDICINE* as they are received from the AMA.

Yousef K. A. Abu-Osba, St. Louis
 Jorge M. Alegre, St. Louis
 Alexander I. Arsenovic, Gladstone
 Vatche H. Ayvazian, St. Louis
 Robert E. Battmer, Kansas City
 Rogelio L. Bautista, Moberly
 Lanny R. Brent, Springfield
 Kenneth A. Buchwach, Kansas City
 Ray W. Burmeister, St. Louis
 Emilio M. Canlas, Poplar Bluff
 Jack Cokrhame, Florissant
 Robert L. Corder, St. Joseph
 Theodore J. Dubuque, St. Louis
 David L. Ellis, Kansas City
 Jack M. Estes, Florissant
 Lee T. Ford, St. Louis
 Richard A. Fraser, Poplar Bluff
 Sidney Goldring, St. Louis
 Edward P. Gutek, Kansas City
 Robert D. Holland, Springfield
 Frank L. Hunleth, St. Louis
 Syed A. Husain, Columbia
 Ibe O. Ibe, St. Louis
 Walter H. Jacobs, Kansas City
 Joshua E. Jensen, St. Louis
 Carl G. Kardinal, Columbia
 Vincente W. Kwan, Potosi
 Keun S. Lee, Columbia
 Harry B. Levey, Kansas City

Robert G. Levitt, St. Louis
 T. Cameron MacCaughelty, St. Louis
 Aruna D. Madduri, Poplar Bluff
 George L. McElroy, Jefferson City
 Michael B. McElroy, North Kansas City
 George E. Mendelsohn, St. Louis
 Charles Miller, Kirkwood
 Thomas J. Mitchell, St. Clair
 Carroll D. Monroe, Columbia
 Jack D. Moore, Kansas City
 Toshio Nishi, St. Louis
 Margaret Mary F. Oakley, St. Louis
 Richard B. Oglesby, St. Louis
 Maurice F. Perll, Kansas City
 Esperanza M. Pimentel, St. Louis
 Mauricio F. Pimentel, St. Louis
 Edward A. Samuelson, Kansas City
 Arnold Schoolman, Kansas City
 Paul R. Singer, Hazelwood
 Kenneth K. C. Siu, Jefferson City
 Peng Nan Wang, Chesterfield
 Suchint Wathana-Charden, Kansas City
 Edward B. Weisman, Kansas City
 Dean F. Werner, North Kansas City
 William Winkler, St. Louis
 Wilfred E. Wooldridge, Springfield
 R. Paul Wright, Kansas City
 Jerry B. Wurster, Kansas City

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

Aug. 15-17 The Long Weekend: Endocrinology
(Tan-Tar-A, Osage Beach)

Oct. 30- Annual Fall Clinical Conference —
Nov. 1 K.C. Southwest Clinical Society
(Alameda Plaza Hotel)

Dec. 4-6 The Heart 1980
(Alameda Plaza Hotel)

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000

Every Wed. & Fri. 3:00 PM — Basic Sciences to Surgery
Seminar
4:00 PM — Surgical Rounds

Contact: Erich W. Pollak, M.D., Director of Surgical Education

First & Third Saturdays 9:00 AM — Surgical Techniques Seminar
9:45 AM — Morbidity and Mortality Conference

Every Tues. 10:30 AM — Surgical Grand Rounds
9:00 AM — Medicine Staff Conference
(Except second Tuesday of each month)

Contact: David S. Sneed, M.D., Director of Medical Education

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
Contact: Office of CME

Sept. 27 Hand Injuries
Oct. 9-11 Update in Hematology/Oncology
Nov. 5 Trauma Management
(St. Louis Metropolitan Medical Society)
Nov. 6-8 Clinical Allergy for the Practicing Physician
Nov. 14-16 Anesthesia and the Geriatric Patient
Dec. 4-5 St. Luke's Clinical Conference
(St. Luke's Hospital)

(1981)

Jan. 4-9 Dx & Rx of Skeletal Disorders
(Keystone, Colo.)

Feb. 26-27 Clinical Topics in Pulmonary Medicine

Mar 2- May 18 Internal Medicine Review
(Monday Evenings — Jewish Hospital)

Mar. 12-13 Gland Rounds (What's New in Endocrinology)

Mar. 19-20 Rheumatology for the Practicing Physician

Mar. 27-28 Vascular Diseases

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

Aug. 6 Rheumatic Heart Disease

University of Missouri School of Medicine
Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
Contact: William D. Bradshaw, M.D.

June 21-22 The Emergency Patient
(Kirksville)

Aug. 1-2 Third Annual Missouri Sports Medicine Symposium

Aug. 2-3 The Emergency Patient
(Cape Girardeau)

Aug. 7-8 Third Annual Workshop in Soft Tissue Surgery

Sept. 6-7 The Emergency Patient
(Branson)

Sept. 12-13 Hypertension Conference
(Tan-Tar-A, Osage Beach)

Sept. 19-20 Annual Plastic Surgery Symposium for the Primary Physician

Sept. 26-27 Annual Meeting of the Missouri Perinatal Association

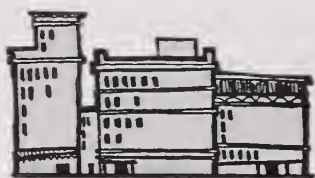
Oct. 3-4 Second Annual Clinical Neurology Conference

Oct. 16-18 Second Annual Autumn Rheumatology Symposium

Oct. 29-31 Medical Ethics Symposium

Nov. 7-8 21st Annual M.D. Day

Nov. 13-14 The Physician and the Infection Control Committee



NEWS

From the Medical Schools

WASHINGTON UNIVERSITY

Peter G. Tuteur, M.D., assistant professor of medicine, was named "Young Internist of the Year" by the American Society of Internal Medicine (ASIM) at its 24th annual meeting held on May 15-18 in Washington, D.C. He was selected for his outstanding clinical and academic contributions to the field of medical socioeconomics, including his innovative design of an introductory course on clinical medicine now being used by other medical schools.



Dr. Tuteur

Dr. Tuteur has been on the faculty of the School of Medicine since 1972 and a member of its committee on admissions since 1975. He also is an assistant physician at Barnes Hospital and a staff physician in the pulmonary division of the St. Louis Veterans Administration Hospital.

A graduate of the University of Illinois School of Medicine in 1966, he served his internship and residency at the Michael Reese Hospital and Medical Center in Chicago. He completed a fellowship in cardiopulmonary research at the University of Pennsylvania School of Medicine. In 1972, he was certified by the American Board of Internal Medicine in internal medicine and pulmonary disease.

Dr. Tuteur is a fellow of the American College of Physicians, a member of their Governor's Advisory Committee and member of the American Thoracic Society.

Bernard Becker, M.D., professor and head of the Department of Ophthalmology, was presented the Procter Award on May 7 at the annual meeting of the Association for Research in Vision and Ophthalmology held in Orlando, Fla. Dr. Becker was honored for his outstanding research in glaucoma and diabetes which he has been conducting for the past 33 years and for his contributions to the diagnosis and treatment of these diseases.

Dr. Becker, who has held his current position with the School of Medicine since his arrival in 1953, has been instrumental in developing the school's ophthalmology department into one of the nation's finest training and research centers in diseases of the eye. In 1967, he established the school's Glaucoma Center, a facility which produced major breakthroughs in the understanding, treatment and control of the disease including insights into its hereditary nature.

Dr. Becker was graduated from Harvard University School of Medicine in 1944 and served his internship and residency at Johns Hopkins Hospital. He was an instructor in ophthalmology at Johns Hopkins in 1951-1952, became an assistant professor in 1952 and taught there until his departure in 1953.

UNIVERSITY OF MISSOURI-COLUMBIA

Gwilym S. Lodwick, M.D., research professor of radiology, has been named chairman of the National Institutes of Health's committee on diagnostic radiology and nuclear medicine for a two-year term beginning July 1.

The committee is responsible for scientific peer review of radiological research proposals submitted to NIH for funding.

Chairman of the School of Medicine's Department of Radiology from 1956 to 1978, Dr. Lodwick is internationally known for his contributions to the science of radiology. Much of his work has involved the application of computers in studying the diagnostic process and in automating the diagnosis of disease. Currently, he is studying how and why radiologists make judgmental errors by using the conventional method of diagnosis — studying X-ray pictures with their own brains — and how often the diagnostic process is improved by computer-assisted diagnosis.

Often cited by scientific groups for his innovative research, Dr. Lodwick was most recently honored by the Finnish Radiological Society when he was presented a medal for his contributions to the science of radiology. He is one of two physicians outside Finland given honorary membership in the society.

Dr. G. Derwood Carnes has received an award from the World Rehabilitation Fund to study the evolution of rehabilitation consumer organizations and their representation in governmental and societal institutions which have impact upon the lives of handicapped persons. An associate professor of psychiatry, Dr. Carnes is chief of the Psychology Section at the Harry S. Truman Memorial VA Hospital. The project is cosponsored by the VA through an extended educational leave. Dr. Carnes will spend in England and Sweden to conduct his studies.

Karl D. Nolph, M.D., director of the Division of Nephrology, and *Barbara Prowant*, R.N., head nurse in the UMC continuous ambulatory peritoneal dialysis program (CAPD), explained this new technique of chronic dialysis at several medical centers in Japan this spring at the invitation of Japanese nephrologists. On their return home, Dr. Nolph and his family stopped in Seattle where he was the invited lecturer at the 20th anniversary of the University of Washington's chronic hemodialysis program, the first such program in the world.

UNIVERSITY OF MISSOURI-KANSAS CITY

Chancellor *George A. Russell*, University of Missouri-Kansas City (UMKC), has announced that the 1980 N. T. Veatch Award for distinguished research and creative accomplishments will go to *Dr. Lee Langley*, associate dean of the School of Medicine.

N. T. Veatch, founder and former managing partner of the engineering firm of Black & Veatch, established an endowment fund at UMKC in 1971. The fund supports one award each year. Dean Langley is the eighth faculty member to receive the award.

Under the terms of the award, the recipient receives \$1,000 and gives a public lecture. Dean Langley's lecture will be given on June 24.

Dr. Langley received his Ph.D. degree in physiology at Yale University in 1942. In selecting Dr. Langley for the Veatch Award, the Faculty Research Council at UMKC took note of the research that he did from 1938 until 1964.

Dr. Langley came to the School of Medicine in 1973 as associate dean and professor of biology.

Seventy-one students graduated from the School of Medicine on May 9 after a week filled with many events in their honor. Highlights of the week included a speech at the Oath of Physicians Ceremony by *Joe Goldenberg* and the annual

Dorothy Lee Ross Lecture given by *Nathan J. Stark*, Undersecretary for the Department of Health and Human Services.

Mr. Stark spoke on "The Politics of Health Care," discussing the changes and advances made in American health care since the beginning of the 20th century.

On May 10, Mr. Stark received an honorary degree of Doctor of Laws from the University of Missouri.

ST. LOUIS UNIVERSITY

Olga M. Blair, M.D., M.I.A.C., associate professor of pathology and director of the Cytopathology Laboratory at the School of Medicine, has been awarded a three-year, \$222,000 contract from the National Cancer Institute for directing postgraduate training courses in cytology.

Dr. Blair also presented a paper at the Seventh International Congress of Cytology in Munich, Germany. The paper, entitled "Thin Needle Aspirations of the Lung," is co-authored by *Drs. Riaz, Sundaram and Wolverson* and cytopathologists *E. Payne* and *C. Fahey*, all of the School of Medicine.



Olga Blair

Stephen M. Ayers, M.D., professor and chairman of the Department of Internal Medicine, has been elected governor of Missouri for the American College of Cardiology.

Dr. Ayers is also the outgoing president of the Society of Critical Care Medicine, a national society for physicians who practice critical care medicine. As president, he participated in the annual meeting in May and delivered a lecture entitled "Primitive Man in the Modern World."

Another national position Dr. Ayers relinquished in May is the chairmanship of the Pulmonary Disease Advisory Committee of the National Institutes of Health. The 16 members of this committee are selected for their reputation in various basic sciences and clinical disciplines relative to pulmonary disease. The purpose of the committee is to identify research opportunities and evaluate current and future programs in diseases affecting the lungs.

New Members

Farid J. Azzam, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Azzam is a native of Beirut, Lebanon, received his preliminary education at the College Notre Dame de Jamhour and his M.D. degree at the French Faculty of Medicine in 1974. He specializes in anesthesiology.

Gordon R. Bloomberg, M.D., 777 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Bloomberg is a native of Chicago, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1959. He specializes in pediatrics.

Frances S. Brown, M.D., 9355 E. 70th Terr., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Brown is a native of Kansas City, received her preliminary education at the University of Missouri-Kansas City and her M.D. degree at the University of Missouri-Kansas City in 1978. She specializes in internal medicine.

Ruth Chacko, M.D., 817 Lisakay Dr., St. Louis 63122, has become a member of St. Louis Metropolitan Medical Society. Dr. Chacko is a native of India, received her preliminary education at Hislop College and her M.D. degree at Indira Gandhi Medical College in 1975. She specializes in internal medicine.

Pinyo Chayasirisobhon, M.D., Scotland County Memorial Hospital, Memphis (Mo.) 63555, has become a member of Lewis-Clark-Scotland County Medical Society. Dr. Chayasirisobhon is a native of Bangkok, Thailand, received his preliminary education at Mahidol University and his M.D. degree at Mahidol University in 1975. He specializes in general practice.

Louis F. Crepps, M.D., 456 N. New Ballas Rd., Creve Coeur 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Crepps is a native of St. Louis, received his preliminary education at the University of Missouri-St. Louis and his M.D. degree at the University of Missouri-Columbia in 1975. He specializes in diagnostic radiology.

Jerry L. Easterday, M.D., Clinic 6, University of Missouri Medical Center, Columbia 65212, has

become a member of Boone County Medical Society. Dr. Easterday is a native of Milan, received his preliminary education at the University of Hawaii and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in psychiatry.

Francis E. Ferns, M.D., 4320 Wornall Rd., 520 Medical Plaza, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Ferns is a native of Pittsburgh, Kan., received his preliminary education at Pittsburg State University and his M.D. degree at the University of Kansas in 1974. He specializes in obstetrics and gynecology.

Filippo J. Ferrigni, M.D., 1515 Lafayette Ave., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Ferrigni is a native of Newark, N.J., received his preliminary education at Yale College and his M.D. degree at Washington University in 1976. He specializes in internal medicine.

Thomas P. Hanley, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Hanley is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1977. He specializes in obstetrics and gynecology.

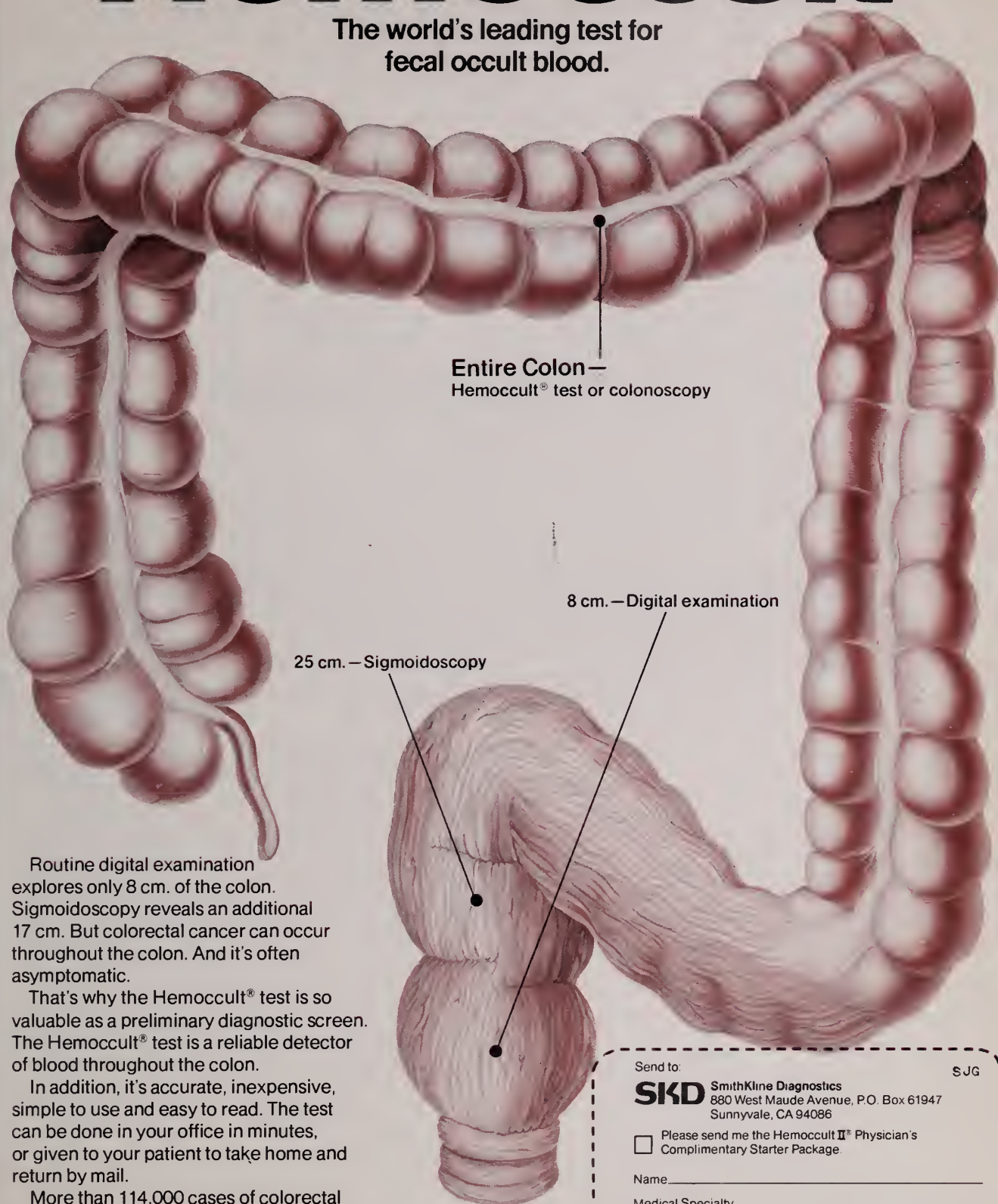
James K. Hunter, Jr., M.D., High and Main, Fairfax 64446, has become a member of Northwest Missouri Medical Society. Dr. Hunter is a native of Fairfax, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at St. Louis University in 1977. He specializes in family practice.

Robert N. Hurd, M.D., Dept. of Surgery, St. Louis University, 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Hurd is a native of Sidney, Mont., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1974. He specializes in general surgery.

Frank E. Johnson, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Johnson is a native of Evanston, Ill., received his preliminary education at the University of Minnesota and

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Perdiem™

Prescribing Information

ACTIONS Perdiem™ with its gentle action, does not produce disagreeable side effects. The vegetable mucilages of Perdiem™ soften the stool and provide pain-free evacuation of the bowel. Perdiem™ is effective as an aid to elimination for the hemorrhoid or fissure patient prior to and following surgery.

COMPOSITION Natural vegetable derivatives. A unique blend of psyllium and senna (Plantago Hydrocollaid with Cassia Pod Concentrate).

INDICATION For relief of constipation.

PATIENT WARNING: Should not be used in the presence of undiagnosed abdominal pain. Frequent or prolonged use without the direction of a physician is not recommended. Such use may lead to laxative dependence.

DIRECTIONS FOR USE—ADULTS Before breakfast and after the evening meal, one to two rounded teaspoonsful of Perdiem™ granules should be placed in the mouth and swallowed with a full glass of warm or cold beverage. Perdiem™ granules should not be chewed. After Perdiem™ takes effect (usually after 24 hours, but possibly not before 36-48 hours), reduce the morning and evening doses to one rounded teaspoonful. Subsequent doses should be adjusted after adequate laxation is obtained.

IN OBSTINATE CASES: Perdiem™ may be taken more frequently, up to two rounded teaspoonsful every six hours.

FOR PATIENTS HABITUATED TO STRONG PURGATIVES: Two rounded teaspoonsful of Perdiem™ in the morning and evening may be required along with half the usual dose of the purgative being used. The purgative should be discontinued as soon as possible and the dosage of Perdiem™ granules reduced when and if bowel tone shows lessened laxative dependence.

FOR COLOSTOMY PATIENTS: To ensure formed stools, give one to two rounded teaspoonsful of Perdiem™ in the evening with warm liquid.

DURING PREGNANCY: Give one to two rounded teaspoonsful each evening.

FOR CLINICAL REGULATION: For patients confined to bed, for those of inactive habits, and in the presence of cardiovascular disease where straining must be avoided, one rounded teaspoonful of Perdiem™ taken once or twice daily will provide regular bowel habits. Take with a full glass of water or beverage.

FOR CHILDREN: From age 7—11 years, give one rounded teaspoonful one to two times daily. From age 12 and older, give adult dosage.

NOTE: It is extremely important that Perdiem™ should be taken with a plentiful supply of liquid.

HOW SUPPLIED: Granules, 100 gram (3.5 oz) and 250 gram (8.8 oz) canisters.

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his M.D. degree at the University of Minnesota in 1963. He specializes in general surgery.

Sandra B. Katz, M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Katz is a native of Kansas City, received her preliminary education at the University of Missouri-Kansas City and her M.D. degree at the University of Missouri-Kansas City in 1977. He specializes in ophthalmology.

Lawrence M. Kotner, Jr., M.D., 216 S. Kings-highway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Kotner is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1968. He specializes in radiology.

David D. Kyzer, M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Kyzer is a native of Anchorage, Alaska, received his preliminary education at the University of Washington and his M.D. degree at Case Western Reserve University in 1978. He specializes in orthopedic surgery.

Gary W. Lamonda, M.D., Rt. #1, Harrisburg 65256, has become a member of Chariton-Macon-Monroe-Randolph County Medical Society. Dr. Lamonda is a native of Maysville, Ky., received his preliminary education at the University of Florida and his M.D. degree at the University of Florida in 1976. He specializes in internal medicine.

J. Daniels Lamping, M.D., 2821 N. Ballas Rd., St. Louis 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Lamping is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1975. He specializes in obstetrics and gynecology.

John V. Linberg, M.D., 6744 Clayton Rd., Suite 315, St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Linberg is a native of St. Louis, received his preliminary education at the University of Rochester and his M.D. degree at New York University in 1971. He specializes in ophthalmology.

Said F. Mahmoud, M.D., 7643 Goddard Dr., Shawnee Mission, Kan. 66214, has become a member of Jackson County Medical Society. Dr.

Mahmoud is a native of Jordan, received his preliminary education at Mosul University and his M.D. degree at Mosul University in 1972. He specializes in pulmonary medicine.

Thomas K. Mangelsdorf, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Mangelsdorf is a native of St. Louis, received his preliminary education at the University of Notre Dame and his M.D. degree at St. Louis University in 1956. He specializes in psychiatry.

Bernard J. McGuire, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. McGuire is a native of Houston, Tex., received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri-Columbia in 1979. He specializes in internal medicine.

Michael R. Miller, M.D., Wayne Miner Health Center, 825 Euclid Ave., Kansas City 64124, has become a member of Jackson County Medical Society. Dr. Miller is a native of Waterloo, Iowa, received his preliminary education at Carleton College and his M.D. degree at the University of Iowa in 1973. He specializes in internal medicine.

William W. Mings, M.D., 3660 Vista, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Mings is a native of Joliet, Ill., received his preliminary education at Southern Illinois University and his M.D. degree at St. Louis University in 1976. He specializes in ophthalmology.

Mary Ann Morley, M.D., 1325 S. Grand Ave., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Morley is a native of St. Louis, received her preliminary education at the University of Missouri-Columbia and her M.D. degree at St. Louis University in 1976. She specializes in obstetrics and gynecology.

Thomas L. Nigro, M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Nigro is a native of Rochester, Minn., received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1977. He specializes in general surgery.

Robert Oertli, M.D., 12345 Mentz Hill Rd., St. Louis 63128, has become a member of St. Louis Metropolitan Medical Society. Dr. Oertli is a native of St. Louis, received his preliminary education at the University of Virginia and his M.D. degree at St. Louis University in 1976. He specializes in internal medicine.

Kirk H. Packo, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Packo is a native of Toledo, Ohio, received his preliminary education at the University of Notre Dame and his M.D. degree at St. Louis University in 1979. He specializes in ophthalmology.

Stephen M. Palmer, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Palmer is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1979. He specializes in dermatology.

Terrence L. Piper, M.D., Barnes Hospital Plaza, 4960 Audubon, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Piper is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1975. He specializes in orthopedic surgery.

Walter N. Porter, M.D., Western Missouri Mental Health Center, 600 E. 22nd, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Porter is a native of Alton, Ill., received his preliminary education at Southern Illinois University and his M.D. degree at the University of Missouri-Kansas City in 1977. He specializes in psychiatry.

Edward P. Reh, Jr., M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Reh is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1978. He specializes in internal medicine.

John L. Rollo, M.D., 11133 Dunn Rd., St. Louis 63136, has become a member of St. Louis Metropolitan Medical Society. Dr. Rollo is a native of Indianapolis, Ind., received his preliminary education at the College of the Holy Cross and his M.D. degree at St. Louis University in 1973. He specializes in pathology.

Jerry L. Rosenblum, M.D., 500 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Rosenblum is a native of Nashville, Tenn., received his preliminary education at Emory University and his M.D. degree at Washington University in 1974. He specializes in pediatrics.

Shameem Saifee, M.D., 1606 Grattan, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Saifee is a native of Bombay, India, received her preliminary education at St. Joseph's College for Women and her M.D. degree at Dow Medical College in 1970. She specializes in pathology.

Lawrence E. Samuels, M.D., Barnes Hospital, Dept. of Dermatology, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Samuels is a native of St. Louis, received his preliminary education at the University of Texas and his M.D. degree at Washington University in 1976. He specializes in dermatology.

Edward H. Schwarz, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Schwarz is a native of St. Louis, received his preliminary education at the University of Louisville and his M.D. degree at the University of Kentucky in 1976. He specializes in pediatrics.

Daniel S. Sexton, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Sexton is a native of St. Louis, received his preliminary education at Duke University and his M.D. degree at St. Louis University in 1973. He specializes in radiology.

Dipak C. Shah, M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Shah is a native of Kungher, India, received his preliminary education at the University of Baroda and his M.D. degree at the University of Baroda in 1974. He specializes in radiology.

Modaser Shah, M.D., 5400 Arsenal, St. Louis 63139, has become a member of St. Louis Metropolitan Medical Society. Dr. Shah is a native of Pakistan, received his preliminary education at Chiba University and his M.D. degree at Tokyo Medical and Dental University in 1968. He specializes in psychiatry.

Zia U. Shamsi, M.D., 4930 Lindell Blvd., St.

Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Shamsi is a native of Pakistan, received his preliminary education at Islamia College and his M.D. degree at Liaquat Medical College in 1971. He specializes in internal medicine and gastroenterology.

Robert D. Shaw, Jr., M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Shaw is a native of Springfield, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1979. He specializes in family practice.

Neal J. Sherman, M.D., 373 W. 101st Terr., Kansas City 64114, has become a member of Jackson County Medical Society. Dr. Sherman is a native of Philadelphia, Pa., received his preliminary education at Rensselaer Polytechnic Institute and his M.D. degree at Albany Medical College in 1976. He specializes in internal medicine.

Glenn M. Sherrod, D.O., 3855 Lucas & Hunt Rd., St. Louis 63121, has become a member of St. Louis Metropolitan Medical Society. Dr. Sherrod is a native of St. Louis, received his preliminary education at the University of Dubuque and his D.O. Degree at Kirksville College of Osteopathic Medicine in 1966. He specializes in neurology.

Charles J. Siegel, M.D., 4936 Holly, Kansas City 64112, has become a member of Jackson County Medical Society. Dr. Siegel is a native of Milwaukee, Wis., received his preliminary education at the University of Wisconsin and his M.D. degree at the Medical College of Wisconsin in 1974. He specializes in pediatrics.

Gurcharan J. Singh, M.D., 6420 Clayton, St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Singh is a native of New Delhi, India, received his preliminary education at Delhi University and his M.D. degree at Delhi University in 1977. He specializes in internal medicine.

Bernhard H. Singsen, M.D., M661, University of Missouri Medical Center, Columbia 65212, has become a member of Boone County Medical Society. Dr. Singsen is a native of Urbana, Ill., received his preliminary education at Oberlin College and his M.D. degree at New York University in 1968. He specializes in pediatric rheumatology.

Dushyant T. Soorya, M.D., 1217 Quantock, Apt. 10, St. Louis 63125, has become a member of the St. Louis Metropolitan Medical Society. Dr. Soorya is a native of Pakistan, received his preliminary education at D. J. Science College and his M.D. degree at Dow Medical College in 1970. He specializes in pediatrics.

Chotchai Srisuro, M.D., 135 W. Adams, Kirkwood 63122, has become a member of St. Louis Metropolitan Medical Society. Dr. Srisuro is a native of Thailand, received his preliminary education at the Faculty of Medical Sciences and his M.D. degree at Faculty of Medicine-Siriraj Hospital in 1967. He specializes in obstetrics and gynecology.

Gregory C. Starks, M.D., 373 W. 101st Terr., Kansas City 64114, has become a member of Jackson County Medical Society. Dr. Starks is a native of Greenville, Miss., received his preliminary education at the University of Southern Illinois and his M.D. degree at Jefferson Medical College in 1973. He specializes in obstetrics and gynecology.

Henry G. Stratmann, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Stratmann is a native of E. St. Louis, Ill., received his preliminary education at St. Louis University and his M.D. degree at Southern Illinois University in 1977. He specializes in internal medicine.

Robert A. Sweet, M.D., 1211 S. Glenstone, Springfield 65804, has become a member of Greene County Medical Society. Dr. Sweet is a native of Pittsburgh, Pa., received his preliminary education at Creighton University and his M.D. degree at Creighton University in 1973. He specializes in internal medicine and endocrinology.

Patrick R. Thomas, M.D., 4511 Forest Park Blvd., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Thomas is a native of Great Britain, received his preliminary education at London University and his M.D. degree at Middlesex Hospital Medical School in 1968. He specializes in radiology and oncology.

Roy L. Thomas, M.D., 300 Mansion House Center, Apt. 1402, St. Louis 63102, has become a member of St. Louis Metropolitan Medical Society. Dr. Thomas is a native of Youngstown, Ohio, received his preliminary education at the Uni-

versity of New Hampshire and his M.D. degree at Meharry Medical College in 1948. He specializes in general surgery.

David E. Thompson, M.D., 12 Doctors Building East, 751 E. 63rd, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Thompson is a native of Topeka, Kan., received his preliminary education at Washburn University, and his M.D. degree at the University of Kansas in 1976. He specializes in anesthesiology.

Michael F. Thompson, M.D., 8622 W. 55th Terr., Shawnee Mission, Kan. 66202, has become a member of Jackson County Medical Society. Dr. Thompson is a native of Tilden, Neb., received his preliminary education at the University of Nebraska and his M.D. degree at the University of Nebraska in 1979. He specializes in internal medicine.

Reeta Thukral, M.D., Research Medical Center, 2316 E. Meyer Blvd., Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Thukral is a native of Srinagar, India, received her preliminary education at Government Womens College and her M.D. degree at Government Medical College in 1970. She specializes in internal medicine.

Sharon F. Tiefenbrunn, M.D., Barnes Hospital, Dept. of Dermatology, 4950 Audubon, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Tiefenbrunn is a native of St. Louis, received her preliminary education at Washington University and her M.D. degree at Washington University in 1975. She specializes in dermatology.

Silvestre A. Tomeldan, Jr., M.D., 216 S. Kingshighway, St. Louis 63110, has become a

member of St. Louis Metropolitan Medical Society. Dr. Tomeldan is a native of the Philippines, received his preliminary education at Far Eastern University and his M.D. degree at Far Eastern University in 1970. He specializes in anesthesiology.

John L. Trotter, M.D., Washington University, Dept. of Neurology, 660 S. Euclid, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Trotter is a native of St. Louis, received his preliminary education at DePauw University and his M.D. degree at Washington University in 1969. He specializes in neurology.

Kodanda R. Tummuru, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Tummuru is a native of Bollapadu, India, received his preliminary education at Andhra Loyola College and his M.D. degree at Guntur Medical College in 1972. He specializes in anesthesiology.

Frank M. Vaughters, M.D., 2727 Main, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Vaughters is a native of Houston, Tex., received his preliminary education at Pomona College and his M.D. degree at Baylor College in 1972. He specializes in pediatrics.

Christopher Veremakis, M.D., 855 Lordshill, St. Louis 63119, has become a member of St. Louis Metropolitan Medical Society. Dr. Veremakis is a native of Wheeling, W. Va., received his preliminary education at Michigan State University and his M.D. degree at St. Louis University in 1975. He specializes in internal medicine.

Ester G. Vilar, M.D., 1755 S. Grand, St. Louis 63104, has become a member of St. Louis Metro-

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politan Medical Society. Dr. Vilar is a native of the Philippines, received her preliminary education at the University of Santo Tomas and her M.D. degree at the University of Santo Tomas in 1962. She specializes in pathology.

Victoria A. Vitale, M.D., 6626-A Loran, St. Louis 63109, has become a member of St. Louis Metropolitan Medical Society. Dr. Vitale is a native of St. Louis, received her preliminary education at St. Louis University and her M.D. degree at St. Louis University in 1979. She specializes in general surgery.

Liem C. Vu, M.D., University of Missouri Medical Center, Dept. of Pathology, Columbia 65201, has become a member of Boone County Medical Society. Dr. Vu is a native of Vietnam, received his preliminary education at the University of Saigon and his M.D. degree at the University of Saigon in 1966. He specializes in pathology.

Norman R. Wall, M.D., 1433 N. Robberson, Springfield 65802, has become a member of Greene County Medical Society. Dr. Wall is a native of Thayer, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1960. He specializes in plastic and reconstructive surgery.

Philip D. Walton, M.D., 606 N. College, Albany 64402, has become a member of Northwest Missouri Medical Society. Dr. Walton is a native of Anaconda, Mont., received his preliminary education at the University of Kansas City and his M.D. degree at the University of Kansas in 1963. He specializes in family practice.

Todd H. Wasserman, M.D., 4511 Forest Park Blvd., St. Louis 63108, has become a member of

St. Louis Metropolitan Medical Society. Dr. Wasserman is a native of Flushing, N.Y., received his preliminary education at the University of Rochester and his M.D. degree at the University of Rochester in 1972. He specializes in radiation therapy.

Thomas F. Wheeler, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Wheeler is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri-Columbia in 1974. He specializes in emergency medicine.

Marc R. Wittmer, M.D., 600 S. Glenstone, Springfield 65802, has become a member of Greene County Medical Society. Dr. Wittmer is a native of Germany, received his preliminary education at Southwest Missouri State University and his M.D. degree at St. Louis University in 1974. He specializes in general surgery.

Robert O. Wonderly, D.O., USAF Hospital, Blytheville AFB, Ark. 72315, has become a member of Cole County Medical Society. Dr. Wonderly is a native of Kansas City, Kan., re-

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ceived his preliminary education at the University of Kansas City and his D.O. degree at the Kansas City College of Osteopathic Medicine and Surgery in 1954. He specializes in anesthesiology.

Chao-Yung Yang, M.D., 6420 Clayton Rd., St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Yang is a native of Taiwan, received his preliminary education at Kaohsiung College and his M.D. degree at Kaohsiung Medical College in 1969. He specializes in anesthesiology.

Paul M. Zack, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Zack is a native of Detroit, Mich., received his preliminary education at the University of Michigan and his M.D. degree at Wayne State University in 1978. He specializes in internal medicine.

New Student Members

St. Louis University

Jule Wetherbee Nelson
Michael L. Tjoelker
Lynn B. Yanagihara

University of Missouri-Columbia

Neal S. Perlmutter
Dana S. Ward
Chan P. Vo

University of Missouri-Kansas City

Azam M. Anwar
Robert M. Arnold
Chuck Beggs
Kevin Boatright
Richard L. Bowe
Stephen M. Butler
Amy S. Eisenstein
Bruce A. Feldman
Charles Garvin
Phillip S. Gifford
Joe Goldenberg
Scott R. Graham
Jeffrey J. Hallazgo
Rick Harlow
Mary Nanette Johnson
Mike Kamada

Christopher B. Kirby
Christine Lord
Marianna L. Martin
Timothy W. Martin
Franklin H. McGinty
Steven B. Miller
Mark A. Molos
Mary Kay Mroz
Jeffrey S. Osborn
Craig K. Reiss
Kathryn R. Roedel
David V. Schrodt
Barbara Tuley
Anita H. Wang
Karen Woods
Kelly Woodward

Washington University

Kurt M. Anderson
John Bellatti
James E. Burton, III
Gregory Collins
Daniel Cosgrove
Laura J. Fochtmann
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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The Ellis Fischel State Cancer Hospital in Columbia was opened formally on April 26, 1940. The late Dr. Ellis Fischel, who was killed in an automobile accident early in 1938, was the first chairman of the Cancer Commission which was established under the sponsorship of Gov. Lloyd C. Stark. The hospital staff consists of Mr. Harry W. Seekman, administrator; Dr. Theodore P. Eberhard, medical director and radiotherapist; Dr. Eugene Bricker, chief surgeon; and Dr. Lauren V. Ackerman, pathologist.

The following was reported in the *AMA Journal* in the March 9, 1940 issue:

"Last week, the United States Fifth Circuit of Appeals at New Orleans upheld a federal district court decision in the libel suit brought by John R. Brinkley against the editor of *Hygeia*. In the presentation of its case before the federal district court, the American Medical Association revealed a long trail of dubious medical activities on the part of Dr. John R. Brinkley for which there was no refutation."

Dr. A. R. McComas, Surgeon, was honored on the occasion of his 50th anniversary in the practice of medicine at a picnic sponsored by the Boone County Medical Society at The Pinnacles in Boone County on May 22. He served as president of the Medical Society in 1934.

TWENTY-FIVE YEARS AGO

Walter J. Burdette, M.D., professor of surgery at Louisiana State University, has been appointed professor of surgery and chairman of the Department of Surgery at the University of Missouri School of Medicine, effective July 1, 1955.

New officers of the medical staff at St. Luke's Hospital in Kansas City are Maxwell G. Berry, M.D., president; Richard H. Kiene, M.D., president-elect; Ernest L. Glasscock, M.D., vice-president; and John H. Gaskins, M.D., secretary-treasurer.

Newly elected officers of the Missouri Society of Anesthesiologists are Drs. Charles H. White, Kansas City, president-elect; Edward O. Kraft, Brentwood, vice-president; and Russell D. Sheldon, Kansas City, secretary-treasurer. Seymour Brown, M.D., St. Louis, was installed as president.

Bernard J. McMahon, M.D., St. Louis, was recently elected president of the American Laryngological Association. Founded in New York in 1879, this is the oldest nose and throat society in the world.

A dinner was held on March 16 in honor of W. E. Baggerly, M.D. on his 73rd birthday.

President Eisenhower has nominated Major Gen. Silas B. Hays, Army Medical Corps, as Surgeon General of the Army, effective June 1.

TEN YEARS AGO

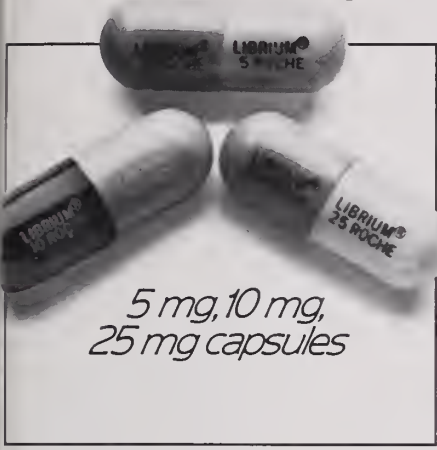
The Honorable Warren E. Hearnes, governor of Missouri, spoke on "Community Health Problems" at St. Louis University School of Medicine. Dr. Robert H. Felix, dean of the School of Medicine, and Dr. Max Pepper, chairman of the Department of Community Medicine, took part in the program presented at the Medical Center on February 9.

A distinguished neurosurgeon, Henry G. Schwartz, M.D., has the first appointment of a new professorship of neurological surgery at Washington University School of Medicine. The Anheuser-Busch Charitable Trust provided the \$500,000 fund and the chair was named the August A. Busch, Jr. Professorship of Neurological Surgery.

Brig. Gen. Carl W. Hughes, commanding officer of Walter Reed General Hospital in Washington, D. C., was awarded the Legion of Merit by the Army last year. A 1940 graduate of the University of Missouri, he also has the Sir Henry Wellcome Award for 1958 for the most original investigation in the field of military medicine.

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Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and

acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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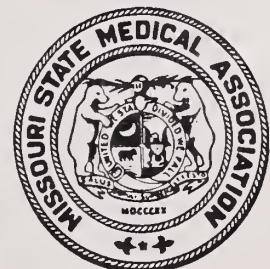
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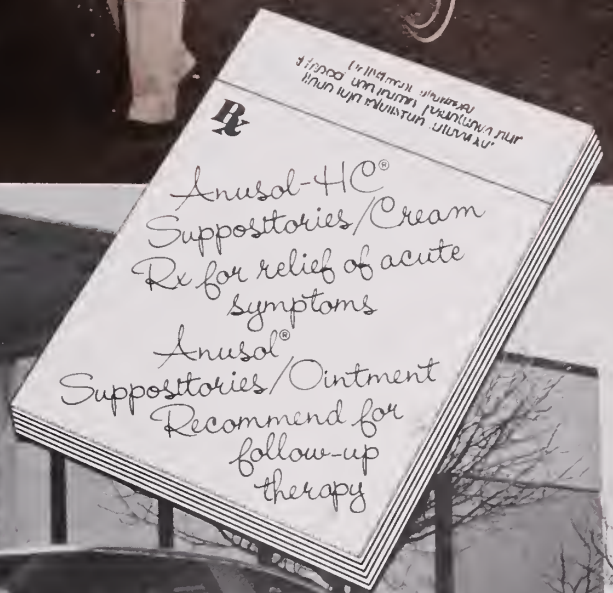
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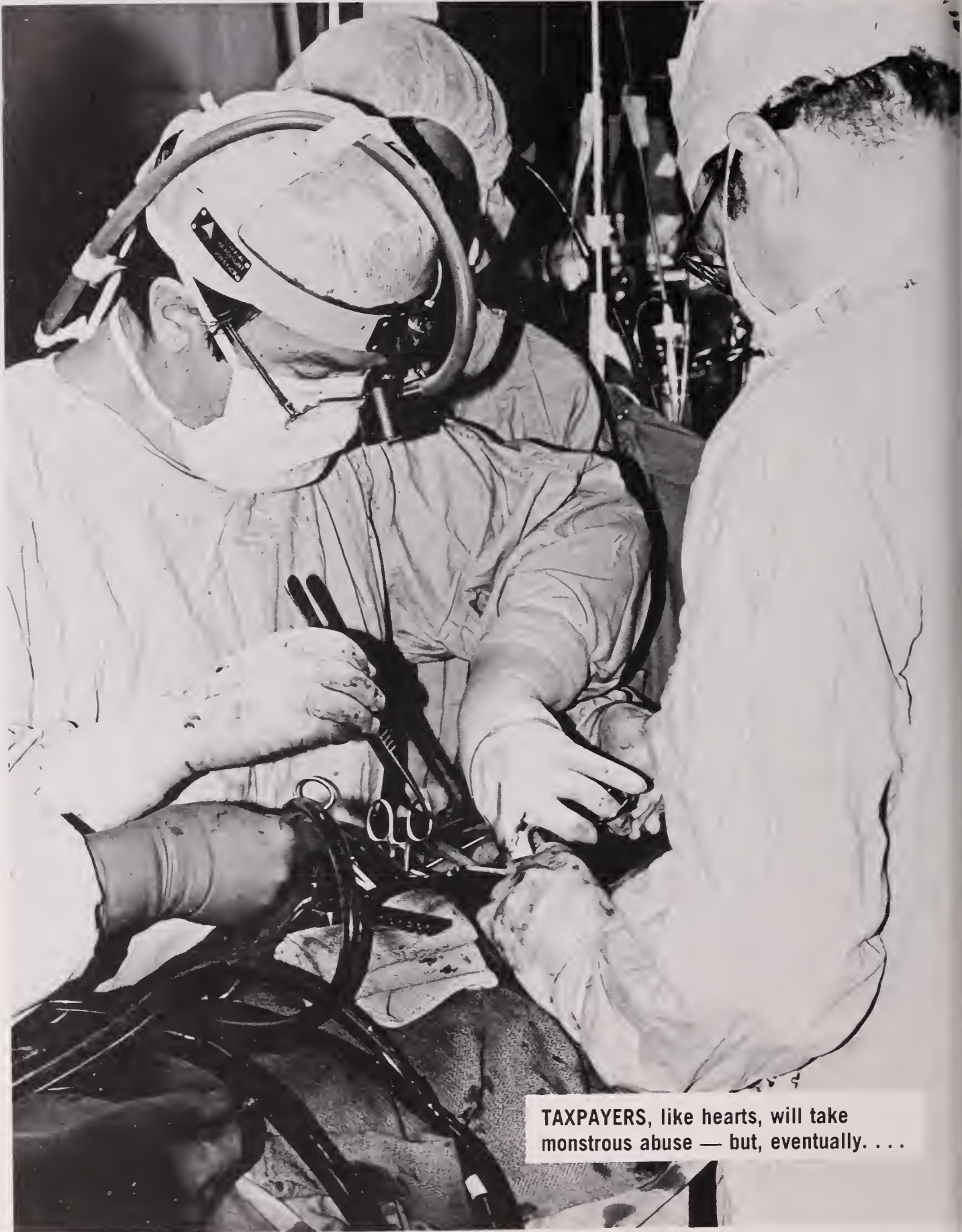
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TAXPAYERS, like hearts, will take monstrous abuse — but, eventually. . .

Editor's Corner

On the Awful Final Day of Judgement, if I were running the show, the downward path to Satan's realm would find the United States Congress present with a quorum. I don't mean that every Senator and Congressman would go that way. I am not a wild-eyed radical. Only about 95% of them. Hell would have its hands full with that bunch, too.

I am far from alone in my opinion that our Congress of the United States is directly to blame for most of the problems of this country in these parlous times. Those national liabilities which can be attributed to that sorry body are many, but among them are:

- (1) Our people, formerly hard-working and industrious, have been encouraged to sloth and indolence. They now think a society can function with a large percent producing nothing, only consuming. That concept is a contagious one which progressively affects those still inclined to work but dubious about whether it's really necessary.
- (2) Citizens, from young to old, have been seduced into immorality by being convinced that a stable household is not a vital link in a stable society. Oldsters live together on two single Social Security checks because they total more than one family check. Young people live together rather than marry because a home without certified male support gets more from welfare. Think what this means when the next generation comes of age.
- (3) Congress has long since abrogated any responsibility for fiscal accountability. Their way out has been the debasement of our currency, an offense reprehensible to the far more perspicacious founders of our country.
- (4) The great Congressional common denominator has nothing to do with right or wrong. The leverage is political expediency and the vote-getting potentiality of any issue in the next election.

Two centuries ago, Alexander Tyler, a British economist, had this to say:

"A democracy cannot exist as a permanent form of government. It can only last until the voters discover they can vote themselves largess from the public treasury. From that moment on, the majority always votes for the candidates promising the most benefits with the result that a democracy always collapses over loose fiscal policy, always followed by a dictatorship."

In our case, this is not solely because of, but is only made possible by, a corrupt and vote-hungry Congress.

Thus, our country is unique in history in two ways; the speed of its ascendancy and the speed of its decline. It is squarely on the Congress; that well-heeled, self-seeking, avaricious body, that much of the blame must rest.

A pox on both their houses!

From:
"Conversations with Myself"
Wilfred E. Wooldridge, M.D.

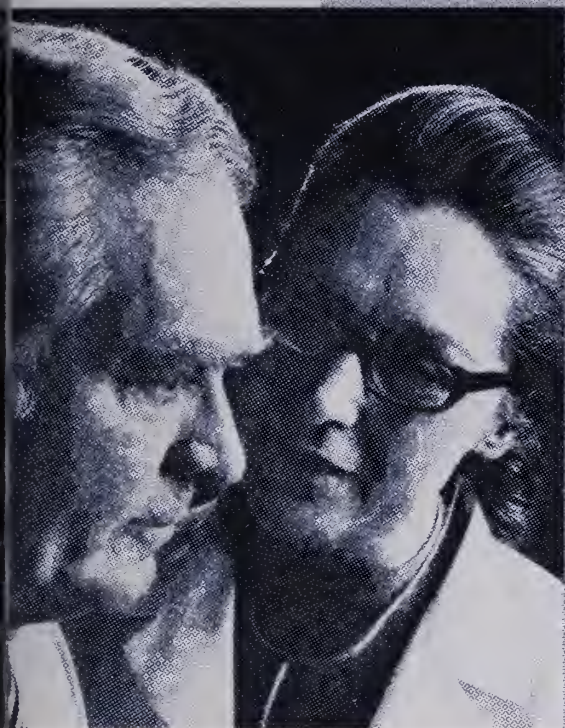
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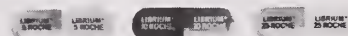




The published record on Librium is enormous. So large, in fact, it had to be put into a computer data bank and retrieval system. It's a record that shows Librium is highly effective in relieving anxiety; that Librium is seldom associated with serious side effects; that Librium rarely interferes with mental acuity at proper doses; that Librium is used concomitantly with primary medications. However, as with all CNS agents, patients should be warned against hazardous activities requiring complete alertness, and about possible combined effects with alcohol.

performance

Librium[®] *N*
chlordiazepoxide HCl/Roche



5mg, 10mg, 25mg capsules

***synonymous
with relief
of anxiety***

- ☐ An unsurpassed safety record
- ☐ Minimal effect on mental acuity, in proper dosage
- ☐ Predictable patient response
- ☐ Is used concomitantly with primary medications, such as anticholinergics and cardiovascular drugs

Please see next page for summary of product information.

Librium[®] 5mg, 10mg, 25mg capsules

chlordiazepoxide HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction, changes in EEG patterns (low-voltage fast activity) may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. *Geriatric patients:* 5 mg b.i.d. to q.i.d. (See Precautions.)

Supplied: Librium[®] (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose[®] packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs[®] (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



Roche Products Inc.
Manati, Puerto Rico 00701

Quinamm[™]

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS: For the prevention and treatment of nocturnal recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis, and static foot deformities.

CONTRAINDICATIONS: Because of the quinine content, Quinamm is contraindicated in women of childbearing potential, in pregnancy, in patients with known quinine sensitivity, and in patients with glucose-6-phosphate dehydrogenase deficiency. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine.

PRECAUTIONS: Thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients. Recovery will follow withdrawal of the medication. Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

ADVERSE REACTIONS: Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued.

DOSAGE AND ADMINISTRATION:

1 tablet upon retiring. When necessary, 1 additional tablet may be taken following the evening meal.

Product Information as of September, 1977

U.S. Patent 2,985,558

Merrell

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

Licensors of Merrell[®]



for Knotts in the night



QuinammTM

each tablet contains quinine sulfate 260 mg., aminophylline 195 mg.

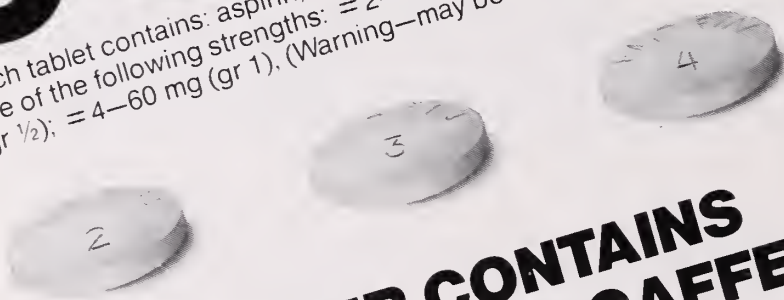
specific therapy for painful night leg cramps

Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

See opposite page for prescribing information.

~~EMPIRIN[®]~~ ~~COMPOUND~~ ~~CODINE~~ IS NOW ~~EMPIRIN[®]~~ ~~CODINE~~

Each tablet contains: aspirin, 325 mg; plus codeine phosphate in one of the following strengths: = 2-15 mg (gr 1/4); = 3-30 mg (gr 1/2); = 4-60 mg (gr 1). (Warning—may be habit-forming)



**NO LONGER CONTAINS
PHENACETIN OR CAFFEINE.**



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



NEWS ROUND - UP

July, 1980

Physicians must be involved in '80 elections

Government rules and regulations affect the practices of all physicians in Missouri. If you have ever wondered how you, as a physician, can have some input into how the government is run — 1980 is the year when you can do something!

This year, Missouri state government may have one of its largest turnovers in recent years. All state representatives and 17 state senators will go before the voters, in addition to the Governor's race.

On the federal level, all ten congressmen and one senator are up for re-election.

With this large turnover, some of the former strong supporters of Missouri medicine may be lost. However, many opponents will also be lost, so *now* is your chance to gain some input with the candidate in your area.

Effective physician support of candidates will insure that the candidates, if elected, will remember that the medical profession was willing to give of their time and money to aid in his election.

In addition to financial contributions, a physician can make an important contribution to a campaign through volunteer work. Although many physicians may feel they cannot spare the time to work on a campaign, an election is an important community activity. In addition, many medical society auxiliary members are interested in the political scene and would like to work for a candidate supported by the medical profession.

One of the easiest ways a physician can have input into an election is to make sure that all eligible family members and office personnel are registered to vote. Both family and office staff know the importance of supporting the medical profession at the polls.

Another way of obtaining input into political campaigns is by contributing to the Missouri Medical Political Action Committee. MMPAC is a voluntary bipartisan committee which reviews the candidates and supports financially those whose views most closely coincide with the medical profession. MMPAC does not buy votes, instead it shows that the medical community is supportive.

Just more than 25 percent of all MSMA members belong to MMPAC. A solicitation mailed to all non-members of MMPAC in June has resulted in nearly 150 additional members. In an election year, more members are needed.



Governor Joseph Teasdale signs into law Senate Bill 532 which repeals the law requiring premarital blood testing. The bill's sponsors look on (left to right) Sen. Harry Wiggins, Kansas City; Rep. Irene Treppler, St. Louis County; and Sen. Frank Bild, St. Louis County. Thomas J. Cooper, M.D., St. Louis, was also present at the signing.

The MMPAC Board of Directors is scheduled to meet immediately following the August primary election so that decisions can be made on who to support in the November general elections. MMPAC members are encouraged to send their recommendations to the MMPAC Board.

MSMA members may become MMPAC members for \$25 or Sustaining Members of MMPAC for \$100. A

Continued on next page

MSMA membership increases

Membership in the Missouri State Medical Association recorded a slight gain in 1979.

There were 5,343 members in the MSMA as of December 31, 1979 for an increase of 114 over the 1978 total of 5,229 members.

For the third consecutive year, MSMA reported a gain in AMA membership for a total of 4,032 members in 1979. By topping the 4,000 mark, the MSMA became eligible for a fifth delegate to the AMA House of Delegates.

In June, all members of the MSMA who are not also members of the AMA received a letter urging them to join the national organization. The mailing included a statement for AMA dues only.

MMPAC (continued)

family membership is also available for \$40. Please clip the coupon on the following page . . . write a personal check . . . and mail it to MMPAC, P.O. Box 1402, Jefferson City, MO 65102.

(Copies of MMPAC and AMPAC reports are filed with the Federal Election Commission and are available for purchase from the Federal Election Commission, Washington, D.C. If your practice is incorporated, MMPAC and AMPAC voluntary political contributions should be written on a PERSONAL CHECK. Contributions are not limited to the suggested amount. Neither the MSMA nor the AMA will favor or disadvantage anyone based upon the amounts of or failure to make PAC contributions.)

1980 MMPAC SUSTAINING MEMBERS

The MSMA members and Auxiliary members who have paid \$100 to become Sustaining Members of the Missouri Medical Political Action Committee are listed below. As of July 1, 1980, a record high of 97 physicians and spouses have joined MMPAC.

Carol F. Williams <i>St. Louis</i>	Mrs. John N. Martin <i>St. Joseph</i>	P. T. Luckenbill <i>Plattsburg</i>	Mrs. Melvin C. Kasten <i>Cape Girardeau</i>
Robert R. MacDonald, Jr. <i>St. Louis</i>	Bruce Stoliar <i>Florissant</i>	Joseph B. Grindon <i>St. Louis</i>	Richard P. Bowles <i>Liberty</i>
Joe L. Spears <i>Cabool</i>	James A. Hasek <i>Mountain Grove</i>	Edward M. Grim <i>Joplin</i>	Albert J. Campbell <i>Sedalia</i>
Charles J. Ash <i>Springfield</i>	Paul H. Rother <i>St. Charles</i>	Sam D. Hooper <i>Grandview</i>	Walter A. German <i>Springfield</i>
Richard V. Bradley <i>St. Louis</i>	Thomas J. Cooper <i>St. Louis</i>	G. E. Thoma <i>St. Louis</i>	Gerard M. Callaghan <i>St. Louis</i>
Claude W. Cooper <i>Thayer</i>	H. Peter Ekern <i>Mexico</i>	D. E. Kuenzi <i>Kansas City</i>	Harry O. Cole <i>St. Louis</i>
William C. Allen <i>Columbia</i>	Marvin Singleton <i>Joplin</i>	T. J. Glenn <i>Cape Girardeau</i>	James M. Whittico <i>St. Louis</i>
Ronald A. Youmans <i>Kansas City</i>	Mr. Royal O. Cooper <i>Jefferson City</i>	James M. Stokes <i>St. Louis</i>	Francis X. Lieb <i>St. Louis</i>
Otakar Machek <i>St. Louis</i>	Mr. C. C. Swarens <i>Jefferson City</i>	John H. Walterscheid <i>Hannibal</i>	Mrs. William R. McPhee <i>Kansas City</i>
Edwin K. Burford <i>Cape Girardeau</i>	Max S. Franklin <i>St. Louis</i>	Mrs. John H. Walterscheid <i>Hannibal</i>	Mrs. W. Jack Stelmach <i>Kansas City</i>
William J. Medlicott <i>Kansas City</i>	Mrs. Max S. Franklin <i>St. Louis</i>	Frank B. Matteson <i>Grant City</i>	William D. Soper <i>Liberty</i>
Jack N. Wiles <i>West Plains</i>	Keith D. Jones <i>Warrensburg</i>	Jerry L. Meyer <i>Concordia</i>	R. E. Dunshee <i>Maryville</i>
Hubert A. Ritter <i>St. Louis</i>	Mrs. Keith D. Jones <i>Warrensburg</i>	Frederick D. Peterson <i>St. Louis</i>	Mrs. Jerry Meyer <i>Concordia</i>
Mrs. Hubert A. Ritter <i>St. Louis</i>	F. Anthony Thomas <i>Kansas City</i>	R. John Torontow <i>Nevada</i>	Mrs. Richard C. Hedges <i>Excelsior Springs</i>
Donald A. Fakhoury <i>Kansas City</i>	Mrs. Donald C. Sanders <i>Kansas City</i>	Mrs. R. John Torontow <i>Nevada</i>	Mrs. Manning Grimes <i>St. Joseph</i>
Mrs. Donald A. Fakhoury <i>Kansas City</i>	Vernon H. Balster <i>St. Louis</i>	Mrs. Richard V. Bradley <i>St. Louis</i>	Mrs. R. L. Ferguson <i>Joplin</i>
Irving H. Clark <i>Kansas City</i>	Robert A. Slickman <i>Kansas City</i>	George H. Ladyman <i>Poplar Bluff</i>	George J. Fuchs <i>Columbia</i>
Milton B. Ozar <i>Kansas City</i>	Mrs. Robert A. Slickman <i>Kansas City</i>	Andrew McCanse <i>Kansas City</i>	Kenneth C. Hollweg <i>Kansas City</i>
Donald E. McIntosh <i>Kansas City</i>	Mrs. Charles H. Cozean, Jr. <i>Cape Girardeau</i>	H. B. Ivy <i>Springfield</i>	Hugh E. Stephenson, Jr. <i>Columbia</i>
Mrs. Rudy Ruhling <i>St. Louis</i>	Mrs. Michael S. Clarke <i>Springfield</i>	George M. Bohigian <i>St. Louis</i>	J. Otto Lottes <i>St. Louis</i>
Richard C. Hedges <i>N. Kansas City</i>	Norma Farmer <i>Farmington</i>	Mrs. Edward M. Hirsch <i>St. Louis</i>	Mrs. T. Reed Maxson <i>Warrensburg</i>
E. T. Hansbrough <i>Poplar Bluff</i>	Theodore L. Paletta <i>St. Louis</i>	Howard J. McAlhany <i>Springfield</i>	Patrick B. Harr <i>Maryville</i>
Rae W. Froelich <i>Lebanon</i>	Byron Stuart <i>Boonville</i>	John I. Matthews <i>Jefferson City</i>	G. Donald Schull <i>Jefferson City</i>
John N. Martin <i>St. Joseph</i>	Truman B. Schertz <i>Kansas City</i>	Melvin C. Kasten <i>Cape Girardeau</i>	Richard H. Fallon <i>St. Louis</i>
			Merrill J. Roller <i>Hannibal</i>

Healing Arts Board active with national group

The Missouri State Board of Registration for the Healing Arts is a member of the Federation of State Medical Boards, Inc., a national non-profit organization formed about 70 years ago. The purposes of this organization are: to keep itself and all members informed of the Healing Arts practice acts of all states; to advance the adoption of adequate and uniform standards for licensure in medicine; and to disseminate information to all members regarding legislation affecting the healing arts and licensure.

The Federation has developed an excellent examination for licensure called the Federation Licensing Examination. Also known as FLEX, the examination has been accepted by all state medical boards. In addition, the Federation is now completing a nationwide computer information system that eventually will provide every state medical board with a complete biography of every physician in the United States.

The Missouri State Board of Healing Arts has participated in the Federation's activities to a much greater degree in the past five years. Gary Clark, the executive secretary, has been very active in the program committee for the annual convention of the Federation. He was appointed as a Consultant to the Federation Board of Directors in 1979 and will continue to serve in that capacity into 1981. James Whittico, M.D., a former member of the Board of Healing Arts, was an active member of the Federation Legislative Committee for years. Salvatore Riggio, M.D., a present member of the board, has represented the board at the last two annual Federation Conventions and has served on the Federation Resolutions Committee.

The Missouri State Board of Registration for the Healing Arts will participate in the future activities of

the Federation because they believe that the Federation is the only medical organization in the United States that can effectively control the quantity and quality of practicing physicians in our country. The future goals of the Federation include the development of a FLEX I-FLEX II Examination Complex, the evaluation of foreign medical schools, the development of a qualifying test system for re-licensure, and the establishment of a nationwide qualified accreditation system for C.M.E. The Missouri Board intends to take part in the attainment of these goals.

LCME states position on UMKC student members

The MSMA has been informed by the Liaison Committee on Medical Education that only those students in the last four years of study at the University of Missouri-Kansas City School of Medicine are considered medical students.

Last Fall, the MSMA voted medical students in Missouri full rights and privileges as members of the Association. Four new component medical societies, one at each medical school, were established and membership recruitment programs were initiated. To date, the recruitment programs have progressed well with over 100 students enrolled as members. Better than 95% of those students who have joined the MSMA have also joined the AMA.

However, a problem developed when the MSMA was unable to obtain medical education numbers for Year I and Year II students from the new Kansas City component society. The MSMA was also informed that these students could not be AMA members. The State Association requested formal notification of reasons supporting the non-acceptance of these MSMA student members who wished to join the AMA.

Edward S. Peterson, M.D., secretary of the LCME, responded that (a) most state licensure bodies require two college years of pre-medical study; and (b) the authority of the LCME is limited to the accreditation of the program leading to the M.D. degree, required to be of at least 32 months duration.

The issue of medical student membership in organized medicine is expected to be considered at the Annual Session of the AMA later this month.

Dr. Goldring is selected

Sidney Goldring, M.D., of St. Louis, was selected as president-elect of the Society of Neurological Surgeons in May in San Francisco. He will take office as president of the Society, the oldest neurosurgical organization in the world, at the annual meeting next year.

Dr. Goldring is professor and head of neurological surgery and co-head of the Department of Neurology and Neurological Surgery at Washington University School of Medicine.

MAKE CHECK PAYABLE TO: *Treasurer: MMPAC, P.O. Box 1402, Jefferson City, MO 65102*

NAME _____

ADDRESS _____

COMPONENT SOCIETY _____

Sustaining Single	\$100 ()
Family (Husband and Wife)	\$ 40 ()
Active	\$ 25 ()

(Dues include Membership in AMPAC)

Items of interest to Missouri physicians

Dr. John McCraw receives AMA Award

The American Medical Association has announced that John B. McCraw, M.D., will be the recipient of the Doctor William Beaumont Award in Medicine at the AMA Annual Session in July. He is the son of MSMA past president Doyle C. McCraw, M.D., of Bolivar, Mo.

Dr. John McCraw is presently practicing plastic surgery in Norfolk, Va. He is a graduate of the University of Missouri-Columbia Medical School.

Interim Session schedule planned

The fifth Interim Session of the Missouri State Medical Association's House of Delegates will be held November 1-2, 1980 at the Holiday Inn in Joplin.

Component societies and members who wish to introduce Resolutions to be included in the Delegate's Handbook must send them to the MSMA Headquarters by October 1. Handbooks will be mailed to Delegates around October 7.

The schedule for the two-day meeting will be as follows: Delegate Registration will begin at 8:30 a.m., Saturday, November 1. The Opening Session of the House is set for 11:00 a.m. Reference Committees will meet at approximately 12:30 p.m. and continue until testimony is completed. The Final Session of the House will begin at 7:30 a.m., Sunday, Nov. 2.

All MSMA members are invited to attend the Interim Session and to testify before the Reference Committees.

Dr. Ferguson is named

Thomas B. Ferguson, M.D., of St. Louis, was named president-elect of the American Association for Thoracic Surgery at the association's April meeting in San Francisco. Dr. Ferguson, who served as secretary of the association from 1966-72, will assume the office of president at the 1981 annual meeting.

Dr. Ferguson is a clinical professor of cardiothoracic surgery at the Washington University School of Medicine and a surgeon at Barnes Hospital, St. Louis.

Wendy Riske joins staff of MSMA



Wendy Riske has recently joined the staff of the Missouri State Medical Association as Director of Communications.

Wendy, 23, received her B.S. in Home Economics — Journalism from the University of Missouri-Columbia in 1978. Prior to coming to MSMA, Wendy was in charge of communications for the United Way of Columbia.

She will handle the publication of the MSMA News Round-up and public and press relations for the Association.

Dr. Leonard Furlow dies

Leonard T. Furlow, M.D., a past president of the Missouri State Medical Association, died June 2, 1980 at his home in Crystal River, Florida.

Dr. Furlow served as president of the MSMA in 1964-65. He was also a past president of the St. Louis Medical Society and the American Board of Neurological Surgery.

In 1933, Dr. Furlow joined the faculty of Washington University School of Medicine and was also named a fellow in neurosurgery at Barnes Hospital, St. Louis.

St. Louis Blue Shield officers elected

James C. Sisk, M.D., of St. Louis, was re-elected Chairman of the Board of Trustees of the St. Louis Blue Shield Plan at the June annual meeting of the organization's 121 member voting board.

Also at the meeting, Richard V. Bradley, M.D., of St. Louis, was elected first vice-chairman and James C. Cope, M.D., of Rocheport, was elected second vice-chairman. Miles C. Whitener, M.D., of St. Louis, was named to the Plan's Executive Committee.

MSMA Committee on the Impaired Physician
Confidential 24-hour Recorded Message Telephone Number

314-636-5744

An added complication... in the treatment of bacterial bronchitis*



Prescribing Summary: Consult the package literature for prescribing information.

Indications and Usage: Cefclor® (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci). Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL NO LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.^{1,6}

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefclor

Pulvules®, 250 and 500 mg

Adverse Reactions: In clinical studies in 1493 patients, adverse effects considered related to cefclor therapy were uncommon and are listed below.

Gastrointestinal symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic: Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic: Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal: Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[070379R]

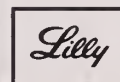
*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.⁸

Note: Cefclor® (cefclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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1. Antimicrob. Agents Chemother., 8: 91, 1975.
2. Antimicrob. Agents Chemother., 11: 470, 1977.
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5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II: 880. Washington, D.C.: American Society for Microbiology, 1978.
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7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G. L. Mandell, R. G. Douglas, Jr., and J. E. Bennett), p. 487. New York: John Wiley & Sons, 1979.



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285
Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630



Partial view of the 1980 MSMA House of Delegates



Andrew McCanse, M.D.
Kansas City
President, MSMA



Richard V. Bradley, M.D.
St. Louis
President-Elect, MSMA

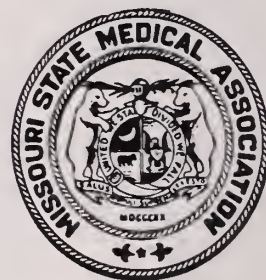


Robert B. Hunter, M.D.
Sedro Woolley, Wash.
President-Elect, AMA



The Honorable Gene Taylor
Sarcoixie
Representative, Missouri
7th Congressional District

Annual Session 1980



Distinguished guest speakers and the MSMA and Auxiliary officers always add an important dimension to every Annual Session. (Left) Dr. McCanse and Dr. Bradley are shown as they addressed the first session of the House of Delegates on April 17. Dr. Hunter was the featured speaker at the MSMA General Session on April 18. Dr. Hunter and Congressman Gene Taylor (Seventh District) addressed the MSMA and Auxiliary members and their guests at the Auxiliary's annual Public Affairs Breakfast on April 19.



(Left) At this session, Dr. Edwin K. Buford, Jr. of Cape Girardeau completed his third term as speaker of the House of Delegates. He will be succeeded by Dr. Jay Meyer of St. Louis.

(Right) President Bradley congratulates Dr. Eugene T. Hansbrough of Popular Bluff after his election as president-elect of the MSMA at the April 20 session of the House of Delegates.



Councilors selected during the 1980 Annual Session include (standing, left to right) Drs. Theodore Paletta, Third District; Peter Ekern, fifth District; Marvin Singleton, Eighth District; John Matthews, fifth District; (bottom row) Drs. J. Otto Lottes, Third District, Frederick Peterson, Third District; and Richard Hedges, First District.



Also elected as councilors were (left to right) Drs. Irving Clark, Seventh District; Jack Wiles, Ninth District; Ms. Diane Budd-Stofferahn, student councilor; and George Ladyman, Tenth District. Dr. Clark was elected vice-chairman of the MSMA Council.



(Left to right) Drs. Larry G. Piepergerdes, vice-councilor, Seventh District; Donald McIntosh, councilor, Seventh District; and MSMA President Andrew McCanse.



(Left to right) Drs. B. A. Moranville, newly-elected secretary; John Matthews, newly-elected Council chairman; and Carol F. Williams, who was reelected as treasurer.



After presenting the traditional presidential gavel to 1980-1981 MSMA President Richard V. Bradley (right), Dr. Andrew McCanse, retiring president (left), accepts a plaque of appreciation for his outstanding service to the MSMA.

Annual Banquet

in honor of MSMA Past-Presidents

The annual banquet on Saturday of the annual session is always a stellar event. The new and retiring MSMA presidents and the past-presidents in attendance are honored and members who have completed 50 years in the practice of medicine receive special recognition. The banquet also provides that special opportunity for members and guests to relax, enjoy a fine dinner, visit with old and new friends and dance to the music of a "big band."



Seated at the speakers' table are (left to right) Dr. Milton B. Ozar, president of Jackson County Medical Society, and Mrs. Ozar; Dr. Donald A. Fakhoury and Mrs. Fakhoury, president of the MSMA Auxiliary; and Mrs. Andrew McCanse and Dr. McCanse, outgoing MSMA president.



(Left to right) Incoming MSMA President Richard V. Bradley and Mrs. Bradley and Mrs. Irving H. Clark and Dr. Clark, general chairman for arrangements.



William E. Allen,
M.D., St. Louis



Richard C. Arnold,
M.D., Columbia



Benjamin F. Byland,
M.D., Maryville



John K. Caldwell,
M.D., Kansas City



Hjalmar E. Carlson,
M.D., Kansas City



John B. Devine, M.D.,
St. Louis

MSMA Members Receive 50-Year Pins



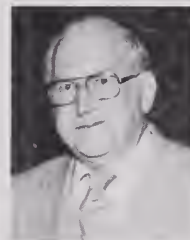
Members of the Missouri State Medical Association who have completed 50 years in the practice of medicine are honored at the Presidents' Banquet each year.

Twenty-two members who attained this distinguished accomplishment in 1980 are pictured here at the time they received their 50-Year Pins and congratulations from Pres. Andrew McCanse on behalf of the MSMA.

Members who received their 50-Year Pins but did not attend the Banquet are Drs. Eugene T. Canty, St. Charles; Donald F. Coburn, Wilmington, Del.; Robert R. Donley, Monett; Charles H. Eller, Santa Fe, N. M.; Robert H. Felix, Sun City, Ariz.; James D. Horton and Daniel Yancey, Springfield; Frank F. Huck, Safford, Ariz.; John R. Kuhn, Joplin; Bernard L. Murphy, Hannibal; James H. O'Neil, Port Charlotte, Fla.; Garrett Pipkin, Clinton; Richard B. Schultz, Lee's Summit; Herbert P. Smith, West Palm Beach, Fla.; Leon A. Taylor, Jefferson City; Clifford C. Wilson, Walnut Creek, Calif.; and Harry Cutler, Dee W. Eades. Virgil O. Fish, Hymen J. Goldman, Belmont B. Gummels, Preston C. Hall, Adolph C. Lange, Joseph M. Orenstein, Vaughn C. Payne, William T. Plumpe and Melvin J. Tess, all of St. Louis.



Maurice A. Diehr, M.D., Chesterfield (right), receives his 50-year pin from President McCanse.



John R. Dixon, M.D.,
Brookfield



Henry Durst, M.D.,
Fulton



Donald E. Eggleston,
M.D., Macon



William H. Ellett,
M.D., Appleton City



Thomas E. Ferrell,
M.D., Springfield



Lynn M. Gardner,
M.D., Jefferson City



Frederick W. Hink,
M.D., Independence



Joseph L. Johnson,
M.D., Springfield



Vincent J. Loppiccolo,
M.D., St. Louis



George Mandler,
M.D., Chillicothe



Joseph P. Russell,
M.D., Jefferson City
(Deceased)



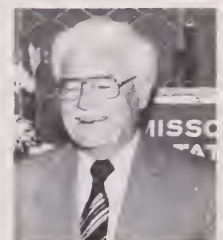
Andrew J. Signorelli,
M.D., St. Louis



Harry J. Stein, M.D.,
Jennings



George C. Wee, M.D.,
Ellisville



Charles H. White,
M.D., Shawnee
Mission, Kan.

The MSMA Auxiliary



The annual convention of the MSMA Auxiliary is held concurrently with the MSMA Annual Session. Special activities include the Auxiliary's annual Public Affairs Breakfast, the MSMA Councilor's Luncheon, a co-sponsored seminar, the Installation Luncheon and the AMA-ERF/MSMF Benefit Auction.

Mrs. Donald A. Fakhoury of Kansas City (right), 1980-1981 president, presents the Auxiliary's past-president's pin to Mrs. Rudy Ruhling of St. Louis, retiring president, at the Installation Luncheon.



Newly elected and installed 1980-1981 Auxiliary officers include (seated, left to right) Mrs. Jerry Meyer, Concordia, president-elect; Mrs. Fakhoury, president; Mrs. William Goodson, Jr., Kansas City, first vice-president; Mrs. John Erickson, Sedalia, treasurer; Mrs. Donald Sanders, Kansas City, recording secretary; (standing) Mrs. Eugene Henschel, St. Louis, third vice-president; Mrs. John D. Mitchell, Shawnee Mission, seventh district director; Mrs. Vernon Jackson, Fulton, second vice-president; Mrs. Jordon Burke, Springfield, eighth district director; Mrs. Clyde V. Martin, Shawnee Mission, fourth vice-president; Mrs. James Shaw, Hermann, auditor; and Mrs. Claude Cooper, Thayer, ninth district director. Officers not pictured are Mrs. Carl Slaughter, Kansas City, corresponding secretary, and Mrs. William McPhee, Kansas City, parliamentarian.

Since the annual convention, Mrs. James N. Haddock of St. Louis has been appointed treasurer to replace Mrs. Erickson, whose family has left Missouri to reside in New Mexico.

Third Benefit Auction to Be Held in 1981!

The MSMA Auxiliary is proud to announce that plans are in progress for the Third AMA-ERF/MSMF Benefit Auction to be held at the 1981 Annual Session in St. Louis. Co-sponsored by the MSMA and Auxiliary, the Second Benefit Auction in Kansas City this year produced \$9,108.50 for the two important student assistance funds — a substantial increase over the 1979 proceeds. All members are urged to begin thinking in terms of their auction donations for 1981.

Remarks of Andrew McCanse, M.D., President



Mr. Speaker, President-Elect Hunter, Delegates, Fellow Members, Auxilians and Guests:

The past year has seen a number of notable achievements in our Association which have brought us together with a new sense of unity.

At our interim session in Columbia last fall, we reapportioned the House of Delegates, giving the larger component societies their fair representation in the House and, at the same time, providing for the smaller societies to continue their much needed voice in dealing with the affairs of the Association. We have expanded the Executive Council to help accomplish the same purposes. We have also accepted medical students for the first time to become full participating members of the Association, allowing them to set up their own component societies and to be a part of the organization which speaks for over 5,300 Missouri physicians.

A new sense of physician unity is what Missouri needs if our state is to make progress in furnishing its residents the best quality of medical care that is consistent with our ability to pay for it. I say it is *our* ability because we are all paying for each others care; our system of third party reimbursement demands it. Physicians and the public alike accept the principle of third party payors; the overwhelming majority of us are covered by such insurance ourselves. And those over age 65 or

those who are supported by welfare are covered by taxes which all of us pay to our governments to provide such medical care. One of our most important missions as a medical association is to help guide these governments in setting their priorities for providing this care.

During the past year, we have worked with the Division of Family Services of Missouri to bring about an increase in Medicaid office fees and certain other surgical and medical fees. Prior to last January, physicians were being reimbursed at the rate of 58¢ on the dollar charged for medical services on Medicaid patients. We were next to the bottom of the so called vendor list, just ahead of the podiatrists. Even the dentists were being reimbursed at a 90% rate. We still are not at the point of parity with Medicare reimbursement, but we are making progress.

Our primary concern must continue to be to see that those who need care receive it, regardless of ability to pay, and, also, to see that those physicians practicing in rural areas are assured of a fair income for serving these patients in large numbers. If these rural physicians are not rewarded adequately for their professional services, they cannot be expected to continue practicing in isolated parts of the state.

A year ago, much of my address was concerned with the costs of medical care. I am pleased to see

that all of us are becoming aware of the importance of this issue. Physician unity again helped bring about the defeat of President Carter's hospital cost containment bill and, instead, we, along with the hospital associations saw a substitute bill sponsored by a Missourian, Rep. Richard A. Gephardt of St. Louis, become law.

Physician fees have lagged behind the cost of living increases for the past year, much more so than in the recent past. We must continue to deal with these costs, however, through such things as avoiding duplication of outpatient laboratory and X-ray work when the patient enters the hospital, formation of medical staff committees in our hospitals to address the matter of cost effective medical care, emphasis on providing outpatient care when indicated and so on.

The two sides of our state have seen the development of two entirely different types of health maintenance organizations. In St. Louis, physicians joined together to form an Independent Practice Association which allows them to offer their services to employers of large groups as an alternative to the Blues and the commercial insurers. These physicians see the subscribers to this health plan in their offices and admit them to their own hospitals as appropriate. They are reimbursed on a fee for service basis. The plan is enjoying good success with well over 20,000 subscribers enrolled.

On the other hand, Kansas City has seen the development of a federally qualified HMO which has employed a number of physicians, furnishes surgical care in one or two hospitals, reimburses the surgeons on a capitation basis, has just opened a second outpatient facility and has about 30,000 subscribers.

Both of these plans were formed with the idea of providing care at less cost than traditional private practice. They are catering to healthy groups initially and can be expected to be less expensive at least until these working people acquire those diseases that come with the passing of time.

Physician unity has brought about the establishment of a professional liability stock insurance company, which is now going through the process of registration with the Securities and Exchange Commission in order to issue shares of stock to the public. MOMEDICO has just printed a preliminary prospectus describing this company. I am sure you will be interested in reviewing it.

We continue to be served by the Missouri Health Data Corporation which our Association helped get started. This corporation is private,

not-for-profit, established to furnish data to third parties on hospitalized patients and to maintain confidentiality of the patients and the physicians. We are represented on the board of directors which is the group that decides who is entitled to what information. The alternative to this corporation very likely would have been for the state Division of Health to collect these data and to furnish the data to the federal agencies and others who have an interest in such information.

Perhaps our greatest single effort as an association is in the legislative field. We have three staff members who spend the bulk of their time in the state capitol lobbying during the sessions of the Missouri General Assembly. Our "key contacts" are physicians all over the state who talk with their representatives and senators when requested to do so by our legislative chairman.

This year, we are working to restrict the expansion of practice by non-physicians in several different health related fields. We oppose direct reimbursement of nurses for services rendered to patients in Rural Health Clinics because this encourages unsupervised rendering of medical care by non-physicians. We oppose the use of diagnostic drugs by optometrists for the same reason. We oppose the further licensure of allied health personnel because it further fragments medical care at a time when we are seeking unity.

In spite of all the euphemisms about team care, the physician is still the director of the care for the individual patient, and all the others who contribute so importantly to the care still must answer to the patient and the physician in the end. We also support bills for a Definition of Death, a separate Department of Health, updating of licensing boards and other bills. We all must be active in these legislative matters if we are to see the best quality medical care rendered in Missouri.

Lastly, I would be remiss if I did not say a few words about the American Medical Association. Few of us stop to think that our membership in the AMA helps pay for its work in the accreditation of the hospitals in which we practice, the accreditation of the medical schools in which we earned our degree to practice, the accreditation of the residency training programs in which we learned to practice our specialties (including family medicine).

The AMA is the largest publisher of medical journals in the world. Through its Principles of Medical Ethics, the AMA helps us to police

(Continued on page 349)

Remarks of Richard V. Bradley, M.D., President-Elect



Mr. Speaker, Dr. Hunter, Members and Guests and our Four New Component Student Societies:

Benjamin Rush, an American-born foreign medical graduate, Surgeon General of the Continental Army during the Revolutionary War, used medical treatments thought to be controversial by many, but he was a physician with an ideal which has been proven achievable, namely, that up-to-date medical care be accessible for the entire population of the newly-founded United States. He believed that "the constitution of the republic should make provision for medical freedom as well as religious freedom."

Seventeen years after the rise of this medical challenge, Missouri had its first known medical association. A few years later, the Missouri State Medical Association was formed to promote the science and art of medicine, protect the public health, improve the medical profession, unite with similar organizations in other states and territories of the United States to form the American Medical Association and, more recently, to organize the physicians of Missouri for negotiation and collective bargaining.

Thus, Missouri physicians voluntarily join together to improve the quality of available life for their patients, not only in the restoration to health where possible, but in the desire to counsel pa-

tients and communities in the available means of preventive medicine, health and hygiene in order to avert outbreaks of pestilence and epidemic diseases.

Philanthropic grants from the private sector of commerce and, subsequently, by charitable organizations were the impetus for the rapid rise of medical capability and availability. Many scientific disciplines join with medicine to advance its technology. It is, therefore, saddening to learn that forces within our Government, within the staffs of HEW and Congress are attempting to destroy this proven force of necessary funds. It was pointed out in the Jan. 19, 1979 *AMA News* that the Government is providing large funds for charitable gifts to the fine arts, but such is not the case for the medical sciences.

Despite these forces of negativism, we have today a superior system of medical capability more available to your patient than at any time past. However, changes in the total economy of our country have brought about focused concern with the cost of medical care delivery. Political forces have been at work since as early as 1932 in attempting to place the federal Government in a dictatorial role with complete control of the budget and policy of American Medicine.

It is fascinating to realize that a thinking population could be sold on the idea that they can

receive something free when common sense whispers constantly that we do have to pay for every "free" lunch.

Government intervention into the presently successful medical system has generated political activities requiring bureaucratic methods in large numbers of our population jobs and, especially, in a new occupation called the "health care planner," whose numbers now exceed those of practicing physicians. There are also at least 40,000 to 75,000 physicians who are more interested in working toward attentive purposes within a national health service rather than in the delivery of service to patients and their fellowman within a private enterprise system.

Rapidly, there are increased numbers of individuals whose training is less than that obtained in accredited schools of medicine and osteopathy who, nevertheless, wish to enter into the limited practice of medicine by whatever method available.

These four large groups have caused extension of the discipline of medicine by adding to *research*, *teaching* and *service*, the term *active response*, who are, in fact, a number of physicians who feel that all doctors should, for the sake of medicine and safety of patients, increase their responsive efforts to fulfill the five-fold purpose of our Association from the individual communities through available channels to the House of Delegates of the American Medical Association, and, even to the halls of Congress when necessary.

A 100% consensus or mandate of Missouri doctors would certainly be heard above those groups who seem to choose a limited promise of security rather than to accept the responsibilities that accompany the freedom and privileges for which the American Revolution was fought. They seem unaware at times of the notation that "welfare, especially that which replaces productivity, tends to destroy those who receive it and to corrupt those who dispense it."

Those forces who take a negative stance with respect to medical care delivery in a free enterprise system make constant use of the media with, at times, a fair amount of sympathy. As a consequence, the medical community occasionally looks upon the media as an adversary. It is fortunate that this is a reversible action which can be changed by credible communication.

Sixteen years of participation in the House of Delegates and the Council of this Missouri State Medical Association have been accompanied by the firm conviction that the officers, councilors

and staff, aided by the committees, commissions, consultants and friends, have always answered the call to duty in their effort to research the queries and implement the dictates of the House of Delegates.

We are fortunate in having the Legislative Chairman, Dr. John Matthews, assisted by Royal O. Cooper, Cork Swarens and Doug Viehland in their legislative efforts — they work constantly with the State Legislature. If our organization worked as hard to provide them with their tools as they do to implement them, the prognosis for favorable outcomes would be greatly enhanced.

The key man and woman activities of your societies are being guided by Dr. Walter German who is keeping the grass roots doctor-to-legislator avenues open. Mrs. Dolores Ruhling's guiding hand has led the Auxiliary through another year of achievement in the area of public health, public assistance awareness and the AMA-ERF not to mention the solace and comfort in the home.

MOMEDICO is your Association's answer to the unwarranted attack on medicine by those carriers of medical liability insurance who chose in 1974 to profiteer against the medical community under false colors and claims. You now have a medical liability insurance company alive, healthy and growing daily and responsible to the needs of Missouri. It would be a mistake for the physicians of Missouri to fail to support this effort for which we thank Dr. Irving Clark and his team.

From time to time there arise factors which impair the ability of the physicians to safely conduct their practice. The appearance of these impairments is receiving close attention by an "impaired" physician committee under the direction of Dr. McIntosh aided by Mike Porter of our staff. This committee has a difficult task in making the physician aware of an alleged impairment and then aiding in the removal of that impairment with the goal of return to an active, safe practice. To date, this effort has been both beneficial and successful.

Dr. George Ladyman and Ron Ellison of our staff have implemented an excellent Commission for Continuing Medical Education that focuses on interested hospitals and teaching centers in Missouri. Other committees and commissions have maintained a keen potential level for possible response to call on kinetic energy. Don Wilson, your field representative, has maintained a steady and helpful liaison with the component societies of the state.

Your Association has joined with the Missouri

Hospital Association to form a Missouri Cost Effectiveness Committee, a part of the national voluntary effort instituted by the American Medical Association, American Hospital Association and the Federation of American Hospitals to meet the challenge of increased medical cost. The hospital groups in Missouri achieved their stated goals in both 1978 and 1979. The physicians of Missouri have kept their part of the challenge by voluntary restraint of fee increases below the national inflation level and by being more cost efficient over a period of many years than our federal bureaucracy could imagine.

A matter of great interest for Missouri Medicine is the development for a more secure power base by the physicians of the State Board of Registration for the Healing Arts. Presently, the Board does not have sufficient power, budget, staff or communication with the physicians of Missouri. Further, the Board has been frustrated when the physician under investigation has chosen to challenge its decision in court rather than to comply voluntarily. The composition of this Board, along with composition of the State Bar Association, is one of peer review and should so remain.

Being a part of the medical community is a true

privilege and mark of accomplishment. Supporting its structure should be desirable within each physician in order to further the capability of the entire profession. We should remain proud to display along with other achievement awards those of membership in our local, state and national medical societies, as well as specialty societies to which we belong. We should remain eager to apply our citizenship in the community in areas of religion, education, scouting and yes, even the political arena. I like to remember that Will Rogers was correct in stating that the winning politicians are as good as those who elect them and probably better than those who do not bother to vote.

Ladies and gentlemen, if your local and component medical societies could stimulate full physician participation at home and encourage them to join voluntarily at the state level and at the national level of the AMA, then the fourth and fifth purposes stated by your Association would meld into that which is necessary to better protect the public health and to prove to all that the science and art of medicine are not only current but dedicated, cost effective, attentive and compassionate in preserving the dignity and quality of each human life for as much time as we are allowed.

Remarks of the President

(Continued from page 346)

ourselves as a profession and to weed out those physicians who are guilty of transgressions in their dealings with patients and the public. The voices of all physicians are heard when our AMA officers and trustees testify before Congress on health related matters. And the imperious rulemakers in our many government agencies are countered daily by our AMA representatives and lawyers both in the courts and in the administrative hearings by such agencies as the Federal Trade Commission.

We have strength in unity in dealing with the federal government and the AMA provides the unity. All of us owe it to ourselves to recruit non-AMA physicians into the fold. Let them bear their fair share of the burden. More than 75% of MSMA members belong to the AMA. We need 100% membership if we are to continue to carry on the above mentioned and the many other pro-

grams of the AMA.

And don't forget AMPAC, the political group which contributed toward candidates who might be expected to share our concern about rendering the best possible medical care within our means to provide. Sign up to be a contributing member today.

I wish to thank the many members of the commissions and committees with whom I have had the privilege of working the past year. A special thanks to our Auxiliary which stands beside us in our efforts. Thank you also to our exceptional staff who carry the workload that makes our Association function so smoothly. And last, my deepest gratitude to my wife, Shirley, and to my daughters for putting up with a husband and father who loves to be in the thick of the medical melee.

I wish the House of Delegates the greatest success in its upcoming deliberations.



Report of Mrs. Rudy Ruhling, President of the MSMA Auxiliary

Mr. Speaker, Dr. McCanse, Dr. Hunter, Members of the House of Delegates and Guests:

Thank you for this opportunity to report on the activities of the Missouri State Medical Association Auxiliary.

An auxiliary year to a state president becomes a succession of days, each of great importance for auxiliary function and life. It is a delight and satisfaction when new members are accepted, membership is increasing and the auxiliary is moving forward. It is frustration, condemnation when apathy shows up in many auxiliaries — lack of interest or a goal not achieved. It calls out the very best one can give in one year of planning and study. It is an education in organization, diplomacy, wisdom, judgement and physical stamina, and it all adds up to a rewarding and wonderful feeling.

I feel the line of communication between the Missouri State Medical Association and the Missouri State Medical Association Auxiliary is open wide. That has to be the sign of success.

However, good communication between all component medical societies and their auxiliaries are of vital importance. While traveling in the counties of Missouri, it is a wonderful feeling to see that many of the auxiliaries enjoy a close relationship with their medical societies. This is the

communication we all need. The auxiliaries that do not have a close relationship with their medical societies are not moving forward. The togetherness between society and auxiliary is the key to a successful organization, and to be effective as a whole, we must succeed in each locality. With inflation soaring, this year has proved to be a very difficult year.

The American Medical Association Auxiliary will have two \$4 dues raises; one will be effective in 1980 and one in 1982. We, in the MSMA Auxiliary, are proposing a \$4 dues raise to be effective July 1, 1980. For eight years, the dues of the Missouri State Medical Association Auxiliary have been \$4 per member. This year without this increase, we will have to operate on a deficit budget.

Many county auxiliaries are feeling the same effects of inflation and need to raise their dues. It's all coming at one time.

Considering the dues raise, we must have positive thoughts. Our medical society auxiliary should be our first concern because, as spouses of physicians, medicine is our future. In membership statewide, we stand at 1,562. That is 23 members less than last year, even though we have 201 new members. It is certain that the new auxiliary membership brochure provided by the Mis-

souri State Medical Association has helped the Auxiliary in obtaining new members, but we need to retain all of our present members in order to increase our membership total.

So, doctors, will you please see that your spouse is a member of her medical society auxiliary? Most importantly, if she is a member, encourage her to continue to pay her dues. She may be active or supportive, whichever is her pleasure. Remember, the Auxiliary vitally needs the support of the medical society in order to succeed.

After reading reports from our surrounding auxiliaries, it is great to hear that many are deeply involved in legislation, HSA monitoring and serving on such boards. CPR is still going strong, and several smaller auxiliaries now have three to six instructors. Shape Up for Life is a program that has really drawn interest. Many county auxiliaries are organizing their exercise classes to get started.

One family that especially impressed me was in Jasper County. Jasper County Auxiliary is moving ahead, and has a very close relationship with the medical society. I will say again, the auxiliary that continues to be active is the auxiliary that has a close relationship with its medical society.

Our contribution to the Missouri State Medical Foundation to assist deserving Missouri medical students totals about \$2,734.50. The Missouri State Medical Association Auxiliary has supported

the American Medical Association Educational and Research Foundation. This is the only national fund-raising project of the auxiliary. I am happy to say that our contribution this year is \$14,868.91 as of April 1, 1980.

After our benefit auction, we hope to add many dollars to this amount. The Auxiliary extends a special invitation to all of you to attend our Second Annual Benefit Auction at 6:30 this evening. There will be lovely hostesses to assist you, hors d'oeuvres will be served by the Auxiliary members and there will be a cash bar. We hope to see all of you there.

I express my appreciation to the members of the Auxiliary for their loyal support and to the Missouri State Medical Association staff members for their cooperation and assistance whenever needed.

I sincerely thank the Missouri State Medical Association for its strong support and generosity during the year when decisions had to be made. We needed somebody to stand beside us, and you were there.

You have a great organization. The Auxiliary will always be there to help when needed.

On behalf of the MSMA Auxiliary, I wish you a successful and productive convention which will provide for you and, therefore, for us, continuous strength and unified direction.

123rd Annual Session
April 8-12, 1981
Chase-Park Plaza Hotel
St. Louis

122nd Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

House of Delegates

Crown Center Hotel — Kansas City
April 17-20, 1980

This report of the 1980 MSMA Annual Session held at the Crown Center Hotel in Kansas City is designed to provide each member with a concise but complete summary of the meeting and the actions taken by the House of Delegates. The minutes of this session are available to members of the MSMA at the Headquarters Office in Jefferson City.

FIRST SESSION

The First Session of the House was called to order at 10:30 AM on April 17, 1980 in the Century Room with Edwin K. Burford, Jr., speaker, presiding. The following officers, councilors and delegates were present during the 122nd Annual Session.

OFFICERS

President Andrew McCanse, Kansas City
 President-Elect Richard V. Bradley, St. Louis
 Vice-President Milton B. Ozar, Kansas City
 Vice-President Mary J. Merideth, Cassville
 Secretary John I. Matthews, Jefferson City
 Treasurer Carol F. Williams, St. Louis
 Speaker of the House
 Edwin K. Burford, Jr., Cape Girardeau
 Vice-Speaker of the House Jay Meyer, St. Louis
 Immediate Past-President ... John N. Martin, St. Joseph

COUNCILORS

1st District Richard C. Hedges, N. Kansas City
 2nd District John H. Walterscheid, Hannibal
 3rd District Thomas J. Cooper, St. Louis
 3rd District Richard H. Fallon, St. Louis
 3rd District James M. Stokes, Chesterfield
 3rd District J. Otto Lottes, St. Louis
 3rd District Theodore L. Paletta, St. Louis
 3rd District Frederick D. Peterson, St. Louis
 4th District Paul H. Rother, St. Charles
 5th District H. Peter Ekern, Mexico
 6th District R. John Torontow, Nevada
 7th District Irving H. Clark, Kansas City
 7th District Donald McIntosh, Kansas City
 7th District Ronald A. Youmans, Kansas City
 8th District Walter A. German, Springfield
 8th District Marvin A. Singleton, Joplin
 9th District Claude W. Cooper, Thayer
 10th District E. T. Hansbrough, Poplar Bluff
 Student Councilor .. Dianne Budd-Stofferahn, Rock Hill

VICE-COUNCILORS

1st District Gary A. Dyer, St. Joseph
 3rd District Gerard M. Callaghan, St. Louis
 4th District William R. Richardson, Union
 6th District A. J. Campbell, Sedalia
 9th District Jack Wiles, West Plains
 10th District George H. Ladyman, Poplar Bluff

DELEGATES

First District

Buchanan Gary A. Dyer, St. Joseph
 Buchanan Joe S. Gunter, St. Joseph
 Buchanan Edmund W. Kline, St. Joseph
 Buchanan Berwyn H. Moen, St. Joseph
 Buchanan Ernest E. Wadlow, St. Joseph
 Clay Richard P. Bowles, Liberty
 Clay Donald Fakhoury, Kansas City
 Clay Nicola Y. Katf, Kansas City
 Clay Donald E. Kuenzi, Kansas City
 Clay William R. McPhee, Kansas City
 Clay Truman B. Schertz, N. Kansas City
 Clay William D. Soper, Liberty
 Clinton Paul T. Luckenbill, Plattsburg
 Grand River Ralph Bohnsack, Brookfield
 Grand River John Dixon, Brookfield
 Grand River Merriam Gearhart, Bethany
 Northwest Edward Bare, Tarkio
 Northwest Ben Byland, Maryville
 Northwest R. E. Dunshee, Maryville
 Northwest Patrick Harr, Maryville
 Northwest Frank Matteson, Grant City
 Platte I. W. Kimball, Kansas City

Second District

Chariton-Macon-Monroe-
 Randolph J. E. Campbell, Macon
 Chariton-Macon-Monroe-
 Randolph C. C. Cohrs, Moberly
 Marion-Ralls-Shelby Julian R. Comer, New London
 Marion-Ralls-Shelby Frederico Florendo, Hannibal
 Marion-Ralls-Shelby Cart R. Kruse, Palmyra

North Central Francis Tarvydas, Edina
Pike Lawrence Stuermer, Louisiana

Third District

St. Louis Metropolitan

St. Louis Luis B. Anglo, St. Louis
St. Louis William H. Bailey, St. Louis
St. Louis Vernon H. Balster, St. Louis
St. Louis Donald T. Behrens, St. Louis
St. Louis William C. Banton, II, St. Louis
St. Louis Ralph L. Bidby, St. Louis
St. Louis Arnold S. Block, St. Louis
St. Louis George M. Bohigian, St. Louis
St. Louis Robert L. Bolton, St. Louis
St. Louis Leslie F. Bond, St. Louis
St. Louis Richard V. Bradley, St. Louis
St. Louis Seymour Brown, St. Louis
St. Louis Gerard Callaghan, St. Louis
St. Louis Donald E. Callahan, St. Louis
St. Louis Rudolph Catanzaro, St. Louis
St. Louis Harry O. Cole, St. Louis
St. Louis Nicholas J. Colosi, St. Louis
St. Louis Cyril Costello, St. Louis
St. Louis Edwin J. Cunningham, St. Louis
St. Louis Charles Dahm, St. Louis
St. Louis Pablo C. deUngria, St. Louis
St. Louis James E. Edwards, St. Louis
St. Louis Harry C. Eggleston, St. Louis
St. Louis Mariano Floro, St. Louis
St. Louis Sylvester A. Flotte, St. Louis
St. Louis Raymond O. Frederick, St. Louis
St. Louis Paul L. Friedman, St. Louis
St. Louis Lance Gerowin, St. Louis
St. Louis Joseph Grindon, St. Louis
St. Louis John Hartwig, St. Louis
St. Louis George L. Hawkins, St. Louis
St. Louis John A. Headrick, St. Louis
St. Louis Vencel W. Hollo, St. Louis
St. Louis J. Ted Jean, St. Louis
St. Louis Joshua E. Jensen, II, St. Louis
St. Louis Otey S. Jones, St. Louis
St. Louis Mohammad A. Kabir, St. Louis
St. Louis Jack Kayes, St. Louis
St. Louis Edward H. Kowert, St. Louis
St. Louis Norton S. Kronemer, St. Louis
St. Louis John M. Laird, St. Louis
St. Louis Jerome L. L'Ecuier, St. Louis
St. Louis Francis X. Lieb, St. Louis
St. Louis Bernard Loitman, St. Louis
St. Louis Frank Luechtefeld, St. Louis
St. Louis T. Cameron MacCaughelty, St. Louis
St. Louis Robert R. MacDonald, Jr., St. Louis
St. Louis Otakar Machek, St. Louis
St. Louis Napoleon S. Maminta, St. Louis
St. Louis Maria Manion, St. Louis
St. Louis Paul F. Max, St. Louis
St. Louis Orlando Meneses, St. Louis
St. Louis Melvin E. Meyer, St. Louis
St. Louis Jerry N. Middleton, St. Louis
St. Louis Arturo C. Montes, St. Louis
St. Louis William Newton, St. Louis
St. Louis Frank Ostapowicz, St. Louis
St. Louis Leopoldo P. Pardo, St. Louis
St. Louis S. D. Parwatikar, St. Louis
St. Louis Richard T. Quick, St. Louis
St. Louis Robert Rainey, St. Louis
St. Louis Frank O. Richards, St. Louis

St. Louis Michael Richmond, St. Louis
St. Louis Edward M. Ring, St. Louis
St. Louis Hubert A. Ritter, St. Louis
St. Louis John P. Roberts, St. Louis
St. Louis George E. Roulhac, St. Louis
St. Louis Mickey L. Salmon, St. Louis
St. Louis Antonio B. Santillano, St. Louis
St. Louis Melvin Schwartz, St. Louis
St. Louis John S. Sciortino, St. Louis
St. Louis Edward Shaw, St. Louis
St. Louis W. Gary Sherman, St. Louis
St. Louis A. J. Signorelli, St. Louis
St. Louis David L. Simon, St. Louis
St. Louis James C. Sisk, St. Louis
St. Louis Kenneth R. Smith, Jr., St. Louis
St. Louis Bruce Stoliar, St. Louis
St. Louis William Stoneman, III, St. Louis
St. Louis George Thoma, St. Louis
St. Louis Jack Tippet, St. Louis
St. Louis Timothy T. Turner, St. Louis
St. Louis Frank J. Valach, St. Louis
St. Louis Michael W. Vannier, St. Louis
St. Louis Nicholas S. Vitale, St. Louis
St. Louis Bruce J. Walz, St. Louis
St. Louis Harold Walters, St. Louis
St. Louis Miles C. Whitener, St. Louis
St. Louis James M. Whittico, St. Louis
St. Louis David Wilkinson, St. Louis
St. Louis Carol F. Williams, St. Louis
St. Louis Ray J. Wolff, St. Louis
St. Louis Robert M. Woolsey, St. Louis
St. Louis George Zografakis, St. Louis

Fourth District

Franklin-Gasconade-
Warren William Richardson, Union
Franklin-Gasconade-
Warren James T. Shaw, Hermann
St. Charles-Lincoln ... Ferdinand Del Pizzo, St. Charles

Fifth District

Audrain Ben Jolly, Mexico
Audrain Harold D. Lankford, Mexico
Boone William C. Allen, Columbia
Boone Thomas R. Anderson, Columbia
Boone A. Sherwood Baker, Columbia
Boone William D. Bradshaw, Columbia
Boone James C. Denninghoff, Columbia
Boone George J. Fuchs, Columbia
Boone Larry Millikan, Columbia
Boone Joseph Montie, Columbia
Boone B. A. Moranville, Columbia
Boone Kenneth L. Rall, Columbia
Boone Garth S. Russell, Columbia
Boone Hugh E. Stephenson, Columbia
Boone Robert M. Thomas, Columbia
Callaway Vernon Jackson, Fulton
Cole Larry Giffen, Jefferson City
Cole Royal Garner, Jefferson City
Cole Charles J. Landsbaum, Jefferson City
Cole Robert P. Wankum, Jefferson City
Lake of the Ozarks Ruth Kauffman, Versailles
Lake of the Ozarks V. D. Vandiver, Osage Beach
Moniteau L. M. Gallagher, California

Sixth District

Henry Richard King, Clinton
Johnson Charles Lederer, Warrensburg

Lafayette-Ray Jerry Meyer, Concordia
 Lafayette-Ray Charles T. Riley, Richmond
 Pettis J. E. Block, Sedalia
 Saline K. T. Papreck, Marshall
 West Central Alfred W. Eklund, Pleasant Hill
 West Central Arthur L. Hansen, Butler
 West Central Candice Moore, Nevada
 West Central Ted Moore, Nevada

Seventh District

Jackson Keith J. Abercrombie, Kansas City
 Jackson Melvin N. Abend, Kansas City
 Jackson John Aldridge, Kansas City
 Jackson Raymond B. Anderson, Kansas City
 Jackson Lafe W. Bauer, Kansas City
 Jackson Richard Biery, Kansas City
 Jackson Stanley N. Brand, Kansas City
 Jackson Charles J. Brook, Kansas City
 Jackson William H. Bryan, Kansas City
 Jackson Barbara N. Buchanan, Kansas City
 Jackson Steven R. Byars, Kansas City
 Jackson Granville E. Clark, Kansas City
 Jackson Robert L. Coleman, Kansas City
 Jackson Mary Catherine Cortner, Kansas City
 Jackson Calvin J. Curts, Kansas City
 Jackson G. David Dixon, Kansas City
 Jackson Vewiser L. Dixon, Kansas City
 Jackson Lawrence L. Evans, Kansas City
 Jackson Robert C. Fairchild, Kansas City
 Jackson Robert L. Goolsbee, Kansas City
 Jackson John A. Griffith, Kansas City
 Jackson Frederick W. Hahn, Jr., Kansas City
 Jackson John M. Haight, Kansas City
 Jackson Ralph R. Hall, Kansas City
 Jackson Howard Hamlin, Kansas City
 Jackson Stephen Hamburger, Kansas City
 Jackson R. R. Hannas, Kansas City
 Jackson E. J. Hanson, Jr., Kansas City
 Jackson Raymond W. Hartwig, Kansas City
 Jackson John R. Hendrickson, Kansas City
 Jackson Samuel D. Hoeper, Sr., Grandview
 Jackson John D. Hunkeler, Kansas City
 Jackson Morton Jacobs, Kansas City
 Jackson Raymond W. Latham, Kansas City
 Jackson R. Stacy Long, Kansas City
 Jackson Edwin E. MacGee, Kansas City
 Jackson William B. Mangum, Kansas City
 Jackson Olin B. Mauldin, Jr., Kansas City
 Jackson William J. Medlicott, Kansas City
 Jackson Nancy R. Mikkelsen, Kansas City
 Jackson Lana K. Minnigerode, Kansas City
 Jackson Turner L. Minnigerode, Kansas City
 Jackson Jack D. Moore, Kansas City
 Jackson George H. Myers, Jr., Kansas City
 Jackson Michael H. Nielson, Kansas City
 Jackson Richardson K. Noback, Kansas City
 Jackson Richard T. O'Kell, Kansas City
 Jackson Lloyd C. Olson, Kansas City
 Jackson Milton B. Ozar, Kansas City
 Jackson Larry G. Piepergerdes, Kansas City
 Jackson Donald A. Potts, Kansas City
 Jackson Jerold M. Rau, Kansas City
 Jackson C. C. Reynolds, Kansas City
 Jackson Wade V. Robinett, Kansas City
 Jackson Daniel L. Schlozman, Kansas City
 Jackson Charles J. Siegel, Kansas City
 Jackson Robert A. Slickman, Kansas City
 Jackson David S. Sneid, Kansas City

Jackson Wilber B. Spalding, Jr., Kansas City
 Jackson Walter J. Stelmach, Kansas City
 Jackson Dennis Szymanski, Kansas City
 Jackson David A. Tillema, Kansas City
 Jackson E. M. Throne, Kansas City
 Jackson Edward J. Twin, Kansas City
 Jackson George Volk, Kansas City
 Jackson Harry Wall, Kansas City
 Jackson John H. Wells, Kansas City
 Jackson Stanley D. Wells, Kansas City
 Jackson George W. Wise, Kansas City
 Jackson David D. Zoller, Kansas City

Eighth District

Dallas-Hickory-Polk-Dade Ruth Rios, Bolivar
 Greene Floyd R. Barnhill, Springfield
 Greene Michael Clarke, Springfield
 Greene Francis M. Corry, Springfield
 Greene Darrel Domann, Springfield
 Greene Philip R. Fogle, Springfield
 Greene Michael Gentry, Springfield
 Greene Edward Gwin, Springfield
 Greene David W. Hall, Rogersville
 Greene H. B. Ivy, Springfield
 Greene Don Menchetti, Springfield
 Greene DeArmond Moore, Springfield
 Greene Stanley S. Peterson, Springfield
 Greene Ramon Shane, Springfield
 Greene C. Courtney Whitlock, Springfield
 Greene Arlen Winsky, Springfield
 Jasper Edward Grim, Joplin
 Jasper Gil B. Manalo, Carthage
 Jasper F. Wendell Pence, Carthage
 Jasper Howard Roberts, Joplin
 Jasper Robert L. Willcoxon, Joplin
 Ozarks Paul Anderson, Neosho
 Ozarks F. R. Esparrago, Monett
 Ozarks Kenneth Glover, Mt. Vernon
 Ozarks Michael Hagen, Aurora
 Ozarks Mary Merideth, Cassville
 Webster Thomas M. Macdonnell, Marshfield

Ninth District

Mid-Missouri Seth Paskon, Salem
 Mid-Missouri Barbara Russell, Rolla
 Mid-Missouri George Slahorek, Ft. Leonard Wood
 South Central O. Martin Hasek, Mountain Grove
 South Central L. G. Mayuga, Cabool
 South Central C. F. Smith, Willow Springs
 South Central Joe Wall, Houston
 South Central Jack N. Wiles, West Plains

Tenth District

Butler-Wayne-Ripley-
 Carter George H. Ladyman, Poplar Bluff
 Butler-Wayne-Ripley-
 Carter Henry E. Lestmann, Fairdealing
 Butler-Wayne-Ripley-
 Carter T. E. Ruff, Poplar Bluff
 Butler-Wayne-Ripley-
 Carter Kirby Turner, Poplar Bluff
 Cape Girardeau Jean A. Chapman, Cape Girardeau
 Cape Girardeau Charles H. Cozean, Jr. Cape Girardeau
 Cape Girardeau John K. Holcomb, Cape Girardeau
 Cape Girardeau Melvin C. Kasten, Cape Girardeau
 SEMO Fuad Kandalafi, Dexter
 SEMO Edwin J. Masters, Sikeston
 SEMO John P. Sargent, Sikeston

DELEGATES-AT-LARGE

Edwin K. Burford, Jr., Cape Girardeau, Speaker
Jay Meyer, St. Louis, Vice-Speaker

Past-Presidents

Victor B. Buhler, Kansas City
R. Allen Chandler, Kansas City
James C. Cope, Rocheport
Max S. Franklin, St. Louis
Howard J. McAlhany, Springfield
Guy N. Magness, University City
Gerald L. Miller, Kansas City
Byron M. Stuart, Boonville

STUDENT DELEGATES

Ms. Kimberley Alexander, Washington University School of Medicine
Mr. Paul M. Busse, St. Louis University School of Medicine
Mr. Arthur Freeland, University of Missouri-Columbia School of Medicine
Mr. Lawrence Piro, Washington University School of Medicine
Mr. James Ritterbusch, St. Louis University School of Medicine
Mr. Anthony Shen, University of Missouri-Kansas City School of Medicine
Mr. Randy Silverstein, University of Missouri-Columbia School of Medicine
Ms. Anita Wang, University of Missouri-Kansas City School of Medicine

Dr. Howard McAlhany, chairman of the Credentials Committee, reported that eight officers, 18 councilors and 169 delegates were present and constituted a quorum.

The minutes of the 121st Annual Session in St. Louis and the Fourth Interim Session in Columbia were approved as published in the July, 1979 and February, 1980 issues of MISSOURI MEDICINE, respectively.

Reference Committees

The Speaker announced the appointment of the following reference committees:

REPORTS OF OFFICERS

R. Stacy Long, Kansas City, Chairman
Leslie F. Bond, St. Louis
Edmund W. Kline, St. Joseph
James Shaw, Hermann
Bruce Stoliar, Florissant

CONSTITUTION AND BYLAWS

Garth Russell, Columbia, Chairman
Anturo C. Montes, Florissant
Michael A. Gentry, Springfield
Donald A. Potts, Independence
Anthony S. Shen, UMKC School of Medicine

RESOLUTIONS

Harry O. Cole, St. Louis, Chairman
Robert C. Faiehild, Kansas City
Gerard M. Callaghan, St. Louis
Robert L. Willeoxon, Joplin
Jean Chapman, Cape Girardeau

Dr. Robert A. Slickman, Kansas City, served as parliamentarian.

The speaker introduced Andrew McCanse, M.D., president of the MSMA; Richard V. Bradley, president-elect of

the MSMA; and Mrs. Rudy Ruhling, president of the MSMA Auxiliary, respectively. Each addressed the House and their remarks are published in this issue, beginning on page 345.

After remarks by Dr. Hubert Ritter, St. Louis, president of the American Medical Association Educational Research Fund, Dr. McCanse and Mrs. Ruhling presented AMA-ERF checks to Missouri's five medical schools as follows: Washington University, \$8,862.00; University of Missouri-Columbia, \$5,781.00; St. Louis University, \$17,046.00; and University of Missouri-Kansas City, \$1,785.00.

Dr. McCanse introduced Dr. Robert Hunter, president-elect of the American Medical Association, who addressed the House of Delegates.

Dr. Irving H. Clark, Kansas City, presented a report on MOMEDICO. He said that shares of Missouri Medical Insurance Company stock had been registered with the Securities & Exchange Commission and he expected that they would be available for purchase by present policy holders and holders of subordinated notes late in April.

Dr. John Martin, chairman of the MMPAC Board, announced that membership is now 1,300 and urged all MSMA and Auxiliary members to join.

Dr. Maple, president, reported on the progress of the Missouri Health Data Corporation.

Supplementary Council Report

Dr. Eugene T. Hansbrough, chairman of the Council, presented the following supplementary report of the Council:

"A meeting of the Council was held at 3 PM on Wednesday, April 16 in the Centennial A Room of the Crown Center Hotel in Kansas City.

"On motion, duly seconded, the minutes of the Feb. 2, 1980 Council meeting were approved.

"The Council approved Drs. Howard McAlhany and Irving Clark and Mr. Royal O. Cooper to vote the 200 shares of MSMI stock owned by the MSMA during the annual meeting of the MSMI to be held on Friday, April 18.

"The Council approved the publication of two additional issues of *Your Health* and the MSMA field secretary is to ascertain interest in future publication of *Your Health*.

"Further publication of this newsletter will be reviewed after the above two issues have been distributed.

"Mr. Cooper reviewed the insurance programs that the MSMA presently sponsors. Those plans currently have the following number of participants: *Forrest T. Jones Plan* — \$250,000 major medical — 107; \$250,000 term life — 121; *Fred S. James Plans* — disability income — 645; overhead expense — 113; accidental death — 117; and hospital indemnity — 35.

"Dr. McCanse asked the councilors to submit one name from each district for the nominating committee. Dr. Richard Bradley has been recommended for another three-year term on the Missouri Professional Standards Review Council.

"Dr. McCanse announced that Dr. Ray W. Froelich has resigned as an AMA delegate and has accepted a position with the Pensacola Educational Foundation in Pensacola, Fla., effective June 1, 1980.

"Dr. McCanse then presented the following courtesy resolution to be presented to the House of Delegates:

Courtesy Resolution — Rae W. Froelich, M.D.

WHEREAS, Dr. Rae W. Froelich, a true family physician, has taken time away from a busy practice to represent Missouri physicians in the highest manner as an alternate delegate and a delegate to the American Medical Association, and

WHEREAS, during his tenure as an alternate delegate (1969-1974)

and as a delegate (1974-1980), Dr. Froelich has earned the respect of his colleagues from across the nation for his dedication, principles and ideas, and

WHEREAS, Dr. Froelich has announced that he intends to leave the private practice of medicine in Missouri to enter into an area where he can share his knowledge and experiences with young physicians about to enter private practice, therefore, be it

Resolved, that the Missouri State Medical Association expresses its appreciation to Dr. Rae W. Froelich for his many contributions to his patients and to his profession, and be it further

Resolved, that the MSMA congratulates Dr. Froelich and wishes him and his family the best as they challenge these new horizons.

"On motion, duly seconded, the council approved submission of the above resolution to this House of Delegates.

(The speaker called for a vote of the House of Delegates. The resolution honoring Dr. Froelich was unanimously adopted.)

"President McCanse stated that he has received a letter from the president of Westminster College in Fulton, Missouri asking the MSMA for financial support for the Hoyt D. Gardner Scholarship Program in pre-medicine at the college. Dr. Gardner is an alumnus of the college and is the current president of the AMA. The college is attempting to raise \$15,000 capital, whose interest will be used to support a junior student in participating in the Mayo Clinic Internship Program during the summer following his junior year.

"On motion, duly seconded, the Council approved the granting of \$500 to the scholarship program.

"Dr. McCanse informed the Council that one hospital in Kansas City has made professional liability coverage mandatory for hospital staff membership. Dr. McCanse urged all those present to become sustaining members of MMPAC. He also reminded the Council of the jogging event that will be held at 7 AM on Friday, April 18.

"Dr. Robert Hunter, president-elect of the AMA, was introduced. He presented a few brief remarks to the Council and complimented the MSMA on its various endeavors.

"Mrs. Dolores Ruhling reminded all those present that the Auxiliary auction will be held on Thursday evening at 6:30 PM in the Centennial Room B for the benefit of medical education. Mrs. Ruhling thanked the Council for all its courtesies during her year as auxiliary president.

"Dr. Burford reported that due to the seemingly small number of resolutions submitted for the handbook, only three reference committees have been named. He indicated that for the delegates' convenience, the Council minutes for the year have been summarized in the handbook.

"Dr. Burford thanked the officers, Council and staff for their assistance and cooperation during his reign as speaker of the house.

"Dr. Irving Clark reported on the progress of MOMEDICO and gave a concise report on the formation previously presented by him to the house.

"Dr. Matthews brought the Council up to date on the status of legislation of interest to the MSMA.

"A complete report has been provided for the delegates and will be considered by a reference committee.

"Dr. Wilfred Wooldridge, editor of MISSOURI MEDICINE, stated that he had been contacted by Dr. James Toomey of Washington University, who indicated his desire to serve on the Editorial Board. Dr. Toomey is an otolaryngologist and has had editorial experience with several of his specialty journals.

"Dr. Wooldridge asked for Council approval for Dr. Toomey's appointment to the Editorial Board of MISSOURI MEDICINE.

"On motion, duly seconded, Dr. James Toomey was appointed to the Editorial Board.

"Dr. Bradley presented a brief report of the Ad Hoc

Committee on AMA Membership. The MSMA recently renewed its ongoing cooperative membership recruitment plan with the AMA.

"Under the plan, all solicitations will be sent from the MSMA office rather than having the AMA directly bill non-members.

"In June, all MSMA members who are not members of the AMA will be sent AMA promotional material along with a letter from the MSMA president asking them to join the AMA.

"In August, all physicians in the state who are not members of either the MSMA or the AMA will be asked to join organized medicine. In addition, the MSMA intends to assist component societies in organizing membership recruitment plans. He indicated that the MSMA is showing an annual membership growth. However, the percentage of new members compared to the percentage of new doctors is less than desirable.

"The St. Louis Metropolitan Medical Society is currently studying methods for implementing a membership recruitment program."

Dr. McCanse appointed the following members to the Committee on Nominations:

William D. Soper, *First District*; Carl Crews, *Second District*; E. J. Cunningham, *Third District*; William Richardson, *Fourth District*; Ben Jolley, *Fifth District*; Charles Riley, *Sixth District*; Robert Fairchild, *Seventh District*; H. Barry Ivy, *Eighth District*; Jack Wiles, *Ninth District*; George Ladyman, *Tenth District*; and Ms. Kim Alexander, *student component medical societies*.

At the request of the speaker, members of the House of Delegates stood for a moment of silence in memory of members of the Missouri State Medical Association who had died in the past year. The memorial resolution and list of deceased members are published on page 369.

The speaker referred the delegates to the prefiled resolutions to be considered at the second session and reminded them that additional resolutions could be introduced at the second session for a two-thirds vote of acceptance by the House.

The speaker adjourned the first session of the House of Delegates.

SECOND SESSION

The second session of the House of Delegates was called to order at 4 PM on Friday, April 18 by Edwin K. Burford, Jr., M.D., speaker.

Dr. McAlhany, chairman of the Credentials Committee, reported that eight officers, 15 councilors and 275 delegates were present and constituted a quorum.

CONSTITUTION AND BYLAWS

Dr. Garth Russell of Columbia, chairman, reported the following considerations of the Reference Committee on Constitution and Bylaws.

Consent Calendar

1. Report of the Commission on Public Affairs
2. Report of the Commission on Medical Economics, Third Party Medicine and Governmental Relations
3. Report of the Commission on Medical-Legal Affairs
4. Report of the Committee on Legislative Affairs

(There being no objections, the above items were considered as adopted.)

House actions on the following resolutions are reported in the section on "Resolutions" on pages 364-365.

Resolution #1 — Privilege of the Floor

- Resolution #2* — Privilege of the Floor
Resolution #3 — CT Scanners
Resolution #4 — Credentialing of PAs
Resolution #9 — Privacy in Professional Liability Cases

REPORTS OF OFFICERS

Dr. R. Stacy Long of Kansas City, chairman, reported the following considerations of the Reference Committee on Reports of Officers:

Consent Calendar

1. Council minutes of April 22, June 2, August 25, November 10 and December 15, 1979 and February 2 and April 16, 1980
2. The President's Message
3. The President-Elect's Remarks
4. Report of the Secretary
5. Report of the Treasurer
6. Report of the MSMA Auxiliary
7. Report of the Executive Secretary
8. Report of the Committee on Publications
9. Report of the Missouri State Medical Foundation

(There being no objections, the above items were considered as adopted.)

House actions on the following resolutions are reported in the section on "Resolutions" on pages 364-365.

- Resolution #6* — AMA Council Appointments
Resolution #7 — Administration of Continuing Medical Education
Resolution #10 — Eligibility for Missouri State Medical Foundation
Resolution #12 — Continued Assessment for the Missouri State Medical Foundation
Resolution #14 — AMA Endorsement of All-American Medical Hall of Fame
Resolution #15 — Certificate of Membership

RESOLUTIONS

Dr. Harry O. Cole of St. Louis, chairman, reported the following considerations of the Reference Committee on Resolutions:

Consent Calendar

1. Report of the Committee on Impaired Physicians
2. Report of the Commission on Continuing Education and Health Manpower and its Ad Hoc Committees
3. Report of the Commission on Interspecialty Medicine
4. Report of the Commission on Voluntary Health Agencies

(There being no objections, the above items were considered as adopted.)

The Reference Committee further recommended that the House of Delegates go on record as supporting House Bill 1785 and Senate Bill 219 in the Congress of the United States which would allow for deductible contributions on the short income tax form in order to encourage small contributions to the voluntary health agencies.

(There being no objections, the above items were considered as adopted.)

House action on the following resolutions are reported in the section on "Resolutions" on pages 364-365.

- Resolution #5* — Proper Care for All Patients
Resolution #8 — Support of Diploma Nursing Schools
Resolution #11 — Proposed Definition on the Practice of Medicine
Resolution #13 — Board of Healing Arts Report

Resolution #16 — Amending Missouri Statutes to Assure Better Eye Care

The meeting was recessed until the third session on Sunday, April 20.

THIRD SESSION

The third session of the MSMA House of Delegates was called to order by Dr. Burford, Speaker, at 7:30 AM on Sunday, April 20.

Dr. McDonald of the Credentials Committee reported that eight officers, 19 councilors and 293 delegates were present and constituted a quorum.

NOMINATING COMMITTEE

Dr. Robert Fairchild, chairman of the Committee on Nominations, submitted the names of the following members on the slate of officers for the ensuing year:

- Vice-President — Dr. Francis X. Lieb, St. Louis
Vice-President — Dr. R. V. Tompson, Moberly
Vice-President — Dr. Joseph S. Cope, Lexington
Speaker — Dr. Jay Meyer, St. Louis
Vice-Speaker — Dr. Barbara Buchanan, Kansas City
AMA Delegate — Dr. Hugh E. Stephenson, Jr., Columbia
AMA Delegate — Dr. Francis X. Lieb, St. Louis
AMA Delegate — Dr. George M. Bohigian, St. Louis
AMA Alternate Delegate — Dr. Richard V. Bradley, St. Louis
AMA Alternate Delegate — Dr. Richard P. Bowles, Liberty
AMA Alternate Delegate — Dr. Marvin Singleton, Joplin
AMA Alternate Delegate — Dr. Andrew McCause, Kansas City

(There were no nominations from the floor. The slate of officers was elected by acclamation.)

Dr. John Matthews, secretary, announced that the following councilors and vice-councilors had been elected:

- First District* — Dr. Richard C. Hedges, N. Kansas City
Vice-Councilor — Dr. Gary A. Dycr, St. Joseph
Third District — Dr. J. Otto Lottes, St. Louis
Dr. Theodore L. Paletta, St. Louis
Dr. Frederick D. Peterson, St. Louis
Vice-Councilor — Gerard Callaghan, St. Louis
Fifth District — Dr. John I. Matthews, Jefferson City
Dr. H. Peter Ekern, Mexico
Vice Councilor — Dr. Larry E. Millikan, Columbia
Seventh District — Dr. Irving H. Clark, Kansas City
Dr. Ronald A. Youmans, Kansas City
Vice-Councilor — Dr. Larry G. Piepergerdes, Kansas City
Eighth District — Dr. Marvin A. Singleton, Joplin
Ninth District — Dr. Jack Wiles, West Plains
Vice-Councilor — Dr. O. Martin Hasek, Mountain Grove
Student Councilor — Diane Budd Stefferhon, Rock Hill
Student Vice-Councilor — Kim Webb, Columbia

At this time, Speaker Burford turned the gavel over to Dr. Jay Meyer, newly elected speaker.

Dr. Jack Wiles presented the following resolution:

Courtesy Resolution — Claude W. Cooper, M.D.

Introduced by South Central Counties Medical Society

WHEREAS, Dr. Claude W. Cooper has served eight years on the MSMA Council as Councilor in an exemplary manner and has served

as an inspiration to the younger men of our District in both the political and medical arena, and
WHEREAS, Dr. Cooper has advised this Society of his desire to step down from his position and his intention to curtail medical practice because of personal reasons, therefore be it

Resolved, that the MSMA expresses its appreciation to Dr. Cooper for his service to organized medicine as well as his patients and his profession and, be it further

Resolved, that the MSMA wishes Dr. Cooper the very best in the future.

(The resolution was adopted unanimously by the House of Delegates.)

Courtesy Resolution — Edwin K. Burford, Jr., M.D.

Introduced by Edwin J. Cunningham, Jr., M.D., Chairman, Third District Delegation

WHEREAS, Dr. Edwin K. Burford, Jr., a conscientious and dedicated physician from Cape Girardeau, has willingly assumed various leadership responsibilities in the MSMA, and

WHEREAS, Dr. Burford has served the MSMA for many years in this House of Delegates, first as a Delegate from the Tenth District, for one term as Vice-Speaker and three terms as Speaker; and

WHEREAS, Dr. Burford has announced his intention to retire and turn over the parliamentary responsibilities of Speaker to a successor; therefore be it

Resolved, that the MSMA House of Delegates expresses its appreciation to Dr. Edwin K. Burford, Jr. for his fair and impartial actions and decisions in his Speaker's role, and be it further

Resolved, that the MSMA congratulates Dr. Burford on the successful completion of his three consecutive terms as Speaker of the House.

(This resolution was adopted unanimously by the House of Delegates.)

In separate resolutions, it was voted that the Missouri State Medical Association should extend congratulations to Dr. Thomas Frawley of St. Louis, president-elect of the American College of Physicians; Dr. Richard D. Blim of Kansas City, president-elect of the American Academy of Pediatrics; Dr. W. Jack Stelmach as president of the American Academy of Family Physicians; and Dr. William Mellick of St. Louis as president-elect of the American Urological Association.

Installation of Officers

The speaker invited the officers, councilors and vice-councilors to stand in front of the podium where Dr. John I. Matthews, secretary, administered the oath of office.

Dr. Hansbrough, elected president-elect, was escorted to the speaker's stand where he made a brief acceptance statement. Mrs. Hansbrough also was escorted to the stand and introduced to the House of Delegates.

The speaker invited Pres. Richard Bradley to announce his committee and commission appointments for the 1980-1981 year. Members whose terms had not expired were not mentioned and it is assumed that they will continue to serve.

Committee Appointments

Constitution and Bylaws — Miles C. Whitener, St. Louis (term to expire in 1983); Robert R. McDonald, St. Louis, chairman for 1980-1981.

Committee on Planning — George Bohigian, St. Louis, and Fred Fowler, Kansas City (terms to expire in 1985); Sam Farrell, Washington (to fill unexpired term, term to expire in 1983); E. Rule Olson, Springfield, chairman for 1980-1981.

Committee on Voluntary Health Agencies — Brent Parker, Columbia (term to expire in 1983); Newton McCluggage, North Kansas City, chairman for 1980-1981.

Committee on Legislative Affairs — Richard V. Bradley, St. Louis; E. T. Hansbrough, Poplar Bluff; John I. Matthews, Jefferson City, chairman for 1980-1981; Irving H.

Clark, Kansas City; Hubert A. Ritter, St. Louis; Douglas Westhoff, Jefferson City; Walter A. German, Springfield, Richard Hedges, North Kansas City (one-year terms).

Liaison Committee with the Board of Healing Arts — Donald McIntosh, Kansas City; John I. Matthews, Jefferson City; T. J. Cooper, St. Louis, chairman; John Martin, St. Joseph; Howard J. McAlhany, Springfield and Andrew McCause, Kansas City.

Commission Appointments

Commission on Public Affairs — Harry Jonas, Kansas City (to fill unexpired term, term to expire in 1981); Charles Jobe, Springfield; Elias M. Throne, Kansas City; Marvin Barbour, Poplar Bluff; Leslie Bond, St. Louis; Edward J. Miller, St. Louis (terms to expire in 1983); Jean A. Chapman, Cape Girardeau, chairman for 1980-1981.

Commission on Medical Economics, Third Party Medicine and Governmental Relations — Philip Sherman, Lebanon (to fill unexpired term, term to expire in 1982); E. J. Cunningham, St. Louis (to fill unexpired term, term to expire in 1981); Fred W. Hahn, Kansas City; Charles H. Cosean, Jr., Cape Girardeau and Frederick Thompson, Nevada; Arturo C. Montes, St. Louis; F. Anthony Thomas, Kansas City (terms to expire in 1983); Harry C. Eggleston, St. Louis, chairman for 1980-1981.

Commission on Continuing Education and Health Manpower — Raymond O. Frederick, St. Louis (to fill unexpired term, term to expire in 1981); Christopher Jung, Cape Girardeau, Wilbur A. Mullarky, St. Louis and Walter C. Dandridge, Joplin; H. Wayne Boydston, Odessa; H. Neal Granemann, Rolla (terms to expire in 1983); and William D. Bradshaw, Columbia, chairman for 1980-1981.

Commission on Medical-Legal Affairs — H. J. Erickson, Sedalia, Richard Bower, St. Louis and Charles B. Wheeler, Kansas City; Vicente D. Deles, Crystal City; Garth Russell, Columbia (terms to expire in 1983); and William J. Medlicott, Kansas City, chairman for 1980-1981.

Committee on the Impaired Physician — H. F. Guhleman, Jefferson City and David Ohlms, St. Louis (terms to expire in 1983); F. X. Lieb, St. Louis (to fill unexpired term, term to expire in 1981) and Arnold S. Block, St. Louis, chairman for 1980-1981.

Commission on Interspecialty Medicine — It is the policy for the president of the Association to appoint representatives of the specialty organizations making up the Commission on Interspecialty Medicine as recommended by those specific organizations. Some of these organizations had not provided names of their proposed representatives by this date. Following are appointments of representatives who have been recommended:

Missouri Radiological Society — William H. McAlister, St. Louis; *Federation of Missouri Urologists* — Jack Moore, Kansas City; *Missouri State Allergy Association* — Larry E. Millikan, Columbia; *Missouri Thoracic Society* — James R. Wiant, St. Louis; *Missouri ENT Society* — Donald Sessions, St. Louis, chairman; *Missouri Psychiatric Association* — Duane Hagen, St. Louis; *Missouri Society of Internal Medicine* — R. William Burmeister, St. Louis; *Missouri State Orthopedic Association* — Charles Ash, Springfield; *Physical Medicine and Rehabilitation* — Otakar Machek, St. Louis; *Missouri Chapter, American Academy of Pediatrics* — Donald L. Thurston, St. Louis; *Missouri Chapter, American College of Surgery* — Charles Anderson, St. Louis; *Missouri State Surgical Society* — Cyril Costello, St. Louis; *Missouri Society of Pathologists, Inc.* — William R. McPhee, Kansas City.

It was voted to hold the 123rd Annual Session in St. Louis, the site and exact dates to be determined by the Council.

The speaker adjourned the 122nd Annual Session of the MSMA House of Delegates.

Reports of Committees and Commissions

REPORT OF THE COMMITTEE ON THE IMPAIRED PHYSICIAN

The Committee on the Impaired Physician met on April 20, 1979 at the Chase Park Plaza Hotel in St. Louis.

A discussion was held on confronter liability, problems of Physician Ethics and the feasibility of some type of funding program to assist impaired colleagues during treatment and recovery.

The Committee also considered its policy regarding confronter-patient relationships. The Committee agreed that a confronter should not act as the treating physician. If the sick doctor chooses the confronter as his or her physician, the confronter must remove himself from that confrontation team. A new member will be appointed to supervise the physician's progress.

The idea of an annual confronters program was discussed. This program would be held in conjunction with the MSMA Annual Session. The Committee felt that this would be extremely valuable. Staff was directed to study the feasibility of the program. As a result of this study, a program has been planned for the Annual Meeting in Kansas City during the 1980 meeting.

At the June 2, 1979 MSMA Council Meeting, Dr. Donald McIntosh, chairman of the Committee on the Impaired Physician, was directed to present to the Council a definition of physician impairment. The Committee prepared the following definition which Dr. McIntosh presented during the August 25, 1979 Council meeting:

"Any physician, due to emotional illness or addiction to alcohol or mood-altering drugs, could be considered impaired if such conditions pose a threat to his well-being or to the public health. The broad emotional illness category would include such conditions as depression, senility, organic and neurological illness."

This was approved by the Council.

During 1979, the first actual year of operation, the Committee received many calls through the 24-hour hotline. Each call has been reviewed by the Committee member responsible and subsequently acted upon. During this process, there have been successes and failures. The Committee feels that the continued efforts by the MSMA membership will further increase the success ratio. In most cases, the impaired physician can be helped, but it is the responsibility of each of us. An impaired colleague left unreported could possibly suffer the loss of health, family, license to practice medicine and even death. This, the Committee believes, is totally unacceptable to the physicians of Missouri.

The Committee wishes to gratefully thank all who have so generously given of their time and efforts in working with the Impaired Physician Program.

DONALD E. MCINTOSH, *Chairman*
HENRY V. GUHLEMAN
DAVID L. OHLMS
JAMES E. YOUNG
ARNOLD S. BLOCK

REPORT OF THE COMMITTEE ON PUBLICATIONS

The 76th Volume of MISSOURI MEDICINE was completed with the publication of the December, 1979 issue. During the year, 13 issues were printed and distributed. Ten of these issues contained scientific articles, special articles and fea-

tures, organizational reports, monthly messages from the presidents of the Association and the MSMA Auxiliary, and news and items of interest to members of the medical profession. The February issue contained the proceedings of the Fourth Interim Session. The July 1 issue contained the official proceedings of the 1979 (121st) Annual Session of the MSMA House of Delegates. The August 15 issue is the annual Membership Roster.

There were two special issues of the Journal. The scientific articles in the May issue were contributed by members of the faculty of the University of Missouri-Columbia School of Medicine and the scientific articles in the December issue were from members of the staff of Ellis Fischel State Cancer Hospital and Cancer Research Center.

During the year, 59 scientific articles and five special articles were published. Most of the articles were written by Missouri authors.

The editors wish to express appreciation to all who submitted scientific manuscripts and to all other individuals, institutions and organizations, including the administrations, faculties and publications departments of the University of Missouri in Columbia and Kansas City, St. Louis University, Washington University, the Ellis Fischel State Cancer Hospital and Cancer Research Center for their valuable contributions.

The complete financial report for the Journal is included in the financial statement of the Missouri State Medical Association for 1979. This report is published in the March, 1980 issue of MISSOURI MEDICINE and is included in the Delegate's Handbook. At the year's end, Journal circulation was 5,742.

WILFRED E. WOOLDRIDGE, *Chairman*
ERNEST LORENC
WILLIAM C. MIXSON
CHARLES S. SHERWIN
BYRON M. STUART

REPORT OF THE COMMITTEE ON LEGISLATIVE AFFAIRS

When that infamous April 15 deadline passes, many of us breathe a sigh of relief that the government is out of our hair for another year, but this doesn't apply in the area of state legislation. In fact, the next two weeks could be the most crucial of the current Missouri General Assembly as far as medicine is concerned.

The 1980 Session of the Missouri Legislature must be termed as one of the busiest and most trying in several years. Basically, it appears that nearly everyone wants to "practice just a little bit of medicine." And, what makes it tougher is that many of those who are striving to expand their practices are long-time friends and allies of medicine. Suddenly, we find ourselves on the opposite sides of issues with groups we have historically cooperated with in insuring good health-related legislation in our state.

With the Legislature aiming for an April 30 adjournment deadline, medicine has been fortunate to date. But, remember, all of this could be turned around in the next two weeks. Now is the time for the many of you in this House of Delegates who serve on Dr. Walter German's "Key Contact" Committee to be especially alert and diligent in letting your legislators know where medicine stands on the issues. Files at the MSMA Headquarters indicate that never before have we had as much one-on-one contact between our members and their spouses with their legislators. We can assure you that this is why we have been so fortunate so far. But, you

cannot let up now.

Included with this report is a list of the major health and medically-related bills that have or are still being considered by the Legislature. Rather than review this self-explanatory list, the Committee prefers to offer its opinions on some of the past actions by this House of Delegates and some of the issues the Committee feels this House will have to address in the future.

We believe that the majority of the issues which this House has pressed for the past several years have been guided rather successfully through the Legislature. Take, for example, resolutions adopted by this House last Spring and Fall. The 96-hour holding period for patients admitted to mental institutions is embodied in the "Omnibus Mental Health Bill" awaiting Senate action. If it is not passed this Session, it should be next year. This House called for establishment of a Separate Department of Health in the state and that bill is awaiting final House action. Again, this is not an assurance of passage, but it does have a chance. True, this House wanted such a bill to insure that the Department Director be a physician and that provision is not included. However, with the state's mandatory salary ceiling for such a position set at \$40,000, it is next to impossible for the state to find a qualified physician with the necessary administrative skills to take such a job.

Also, this House asked for elimination of the pre-marital blood test requirement because this is no longer an effective or cost-efficient method for locating syphilis. The bill sailed through the Senate and a House Committee and, although it has hit a snag in the full House, it could still be passed this Session.

There are failures, too. The MSMA has been unable to gain passage of bills designed to alleviate the professional liability insurance cost problem. The Missouri Legislature adopted one of the most comprehensive medical professional liability packages in the nation in 1976, but, since that time, the Legislature has been unwilling to take another step in that direction. In fact, one of the bills in that package, which established pre-trial hearing panels, has been declared unconstitutional by the Missouri Supreme Court.

If it is any solace to MSMA members, your Committee would point out that no other state is having any better success in the medical professional liability area. Supposedly, our "crisis" is over . . . although we know better. Also, our legal brethren have been unable to push even the most simple legal professional liability bill through the Legislature and, despite the horror stories we hear almost daily, the business community has been just as ineffective in gaining passage of a product liability bill. In 1976, medicine was in the right place at the right time. Since that time, however, it appears that legislators throughout the nation consider rising liability insurance rates as part of "doing business." But, your Committee will keep trying.

Taking a look at the list of bills attached, it is easy to see that whereas chiropractic was once the only field medicine felt was trying to expand its practice into the area of medicine, now we see bills offered by nurses, physicians assistants, optometrists and other allied health personnel which would appear to be attempts to gain inroads into areas physicians have long felt are the practice of medicine. Your Committee wishes it could forecast that these issues would fade away but they won't.

We have members who want to utilize nurse practitioners and physicians assistants and, in fact, schools in Missouri are turning out people in both of these professions. We have ophthalmologists who appear before legislative committees and testify that optometrists are, indeed, qualified to apply certain drugs to the eye. Legislators look at these efforts to

expand or create practice areas from two views. One, of course, is cost and the premise that such paramedical personnel can provide services at a lower cost. But, perhaps surprisingly, most legislators are looking at these paramedical personnel as a way to increase access to health care for the people of the state.

Many of medicine's friends, not foes, have already advised the MSMA that ophthalmologists and optometrists need to meet together and come up with some "common ground" or be willing to live with whatever the Legislature decides to pass. Since more than 30 states have already adopted laws permitting optometrists to use some drugs and since medicine's "friends" are advising that a compromise be worked out, it is your Committee's hope that the MSMA can convince our ophthalmologist colleagues to consider a solution.

Whatever the future may bring, your Committee feels that MSMA members should be apprised of certain facts:

- To date, optometrists cannot use drugs in Missouri although more than 30 other states have already approved such legislation;
- Despite having more chiropractors per population than any other state, according to AMA statistics, Missouri's chiropractic statutes are the most strict in the nation;
- Although 47 states recognize physician's assistants, Missouri does not license PAs. Interestingly, many state medical associations which originally pushed to license PAs are now finding that they must oppose annual attempts by PAs to expand their practice;
- Nurse practitioners, in testimony before legislative committees, claim that they now can practice more or less independently in more than 40 states. To date, NPs have been unable to gain legislative approval to expand their practice in Missouri. Also, moves by Registered Nurses to qualify for direct payment for services from Medicaid have also been denied by the Missouri Legislature;
- "Cures for all ills" have also been headed off by your Association. Treatment by acupuncture by non-physicians has been approved in many states and, most recently, the sale and use of laetrile as a cancer treatment has been okayed by about half of the states. Your Association has been in the forefront in preventing passage of such legislation in Missouri.

These examples show the opinions of Missouri physicians have been fairly considered by the Missouri General Assembly. Even though it is possible that one or more of the above could be changed in the final two weeks of the present Session, the physicians of our state and their patients should feel proud that medicine's voice has been heard.

In the current General Assembly, more than 160 bills which could affect your practice and your patients were introduced and your Association presented personal testimony on more than 25 measures and provided written testimony on perhaps 20 others. To have an impact on this high number of issues requires the involvement of all MSMA members. Your Committee urges each of you to become personally acquainted with your legislators and, most importantly, be willing to carry medicine's story to these individuals who decide on the laws that ultimately determine how medicine is to be practiced in Missouri.

JOHN I. MATTHEWS, *Chairman*
ANDREW MCCANSE
RICHARD V. BRADLEY
EUGENE T. HANSBROUGH
H. PETER EKERN
HUBERT A. RITTER
ROBERT E. BREGANT
WALTER A. GERMAN

REPORT OF THE COMMITTEE ON VOLUNTARY HEALTH AGENCIES

As previously reported, the Committee on Voluntary Health Agencies meets every other year with representatives of the statewide voluntary health agencies. The next meeting will be held later in 1980.

The activities and directory in the July issue continue. We do urge members of MSMA to participate in and provide guidance to those voluntary health organizations of their choice.

W. C. ALLEN, *Chairman*
JOHN D. ARNOLD
GUY MAGNESS
DARRELL DOMANN
NEWTON C. MCCLUGGAGE

REPORT OF COMMISSION ON MEDICAL ECONOMICS, THIRD PARTY MEDICINE AND GOVERNMENTAL RELATIONS

The major effort of the Commission during the past year was again directed to problems associated with the Medicaid Program.

During each of the two meetings held during the year, a representative from Electronic Data Systems Federal described the activities of EDSF since becoming the processor for Medicaid claims in August, 1979. It was reported by EDSF that it is required by contract to process a "clean" claim within ten days and they provided the Commission with data on physician reimbursement and participation. They were made aware of problems physicians continue to encounter in receiving payment and pledged their cooperation in meeting future problems. Following the January meeting, a tour of EDSF facilities in Columbia was conducted.

The contracting with EDSF coincided with the beginning of a Medicaid Management Information System and nearly coincided with the appointment of John Hall as Director of Medical Services in the spring of 1979. These changes have led to improvements in the Medicaid program, but inadequate fees, low participation levels and "start-up" problems remain problem areas.

The question of support for the concept of a single fee for single service in Medicaid reimbursement was discussed during a September conference call. The Commission was evenly divided on this issue and decided to take the question to the Interim House of Delegates which did endorse the concept by passing Resolution #13. This has now been implemented by the Division of Family Services by raising all generalist fees to the higher fee which was paid only to specialists in the past.

The Division of Family Services has cooperated in a continuing effort by the MSMA to establish a deferred compensation program and staff is now in negotiation with several entities capable of administering such a plan. Other areas of cooperation have been providing data on physician reimbursement and participation (although this has meant a more lengthy and complex claim form for physicians), acknowledgement of the inadequacy of physician fees and extension of the initial 90-day claim filing period to one year.

The passage of HB 88 during the 1979 legislative session will provide an appeal mechanism for all Medicaid providers. The Commission commended the passage of this legislation and will inform MSMA members of appeal procedures when they are fully developed.

The Commission recommended, and the Council subsequently approved, that parity with Medicare fees be an appropriate benchmark for physician fees paid by Medicaid.

Drs. Matthews and Clark To Head MSMA Council

Dr. John I. Matthews, Jefferson City, was elected chairman of the Council at the council meeting which followed the MSMA House of Delegates session on April 20. Dr. Irving H. Clark, Kansas City, was elected vice-chairman.

The Council also elected Dr. B. A. Moranville of Columbia as secretary of the MSMA and reelected Dr. Carol F. Williams of St. Louis as treasurer for 1980-1981.

MSMA members are urged to contact their legislators and carefully explain the inadequacies of the program and further explain that the low reimbursement level prevents several physicians from practicing in either the "innercity" or rural areas of the state. The Commission also urges physicians to be sure that they provide their usual and customary fees in completing the claim form.

In January, the Commission heard a presentation from two representatives of General American Medicare Part B, processors of Medicare claims for the eastern portion of Missouri. The new concept of magnetic tape billing and the high number of claims filed, for which the physician must be contacted for a correction or a change, were discussed. Seminars to explain magnetic tape billing will be conducted during 1980.

The Commission reviewed materials describing a proposed Metropolitan Voluntary Second Opinion Program. Metropolitan was urged to follow guidelines of the American College of Surgeons and the American Medical Association Council on Medical Services in establishing their program. The material indicated that the AMA guidelines were used in implementing other Metropolitan Voluntary Second Opinion Programs.

At each of the two meetings, the Commission accepted portions of a study of IPAs, Foundations and HMOs requested by the MSMA Council. The first portion provided definitions of these prepaid health care plans, presented several organizational models, and described the Federal HMO Act.

The second opinion of this study described 11 prepaid plans currently operating in Missouri or in the development stage. The Commission will continue to monitor the development of prepaid plans.

The Commission noted with sorrow the death of Dr. Louis P. Hetlage who served as a member and later as Councilor Advisor to the Commission for a number of years. His contribution was acknowledged by the Commission.

HARRY C. EGGLESTON, *Chairman*
JOHN A. GRIFFITH
CHARLES H. COZEAN, JR.
L. M. MAGRUDER
ARTURO C. MONTES
F. ANTHONY THOMAS
STANLEY S. PETERSON
JOHN R. ESTHER
J. OTTO LOTTES
R. PHILLIP ACUFF

A. E. BRAVERMAN
MARY K. MCCAFFREE
MAX A. HEEB
JAMES L. CARPENTER
RAE W. FROELICH

REPORT OF THE COMMISSION ON CONTINUING EDUCATION AND HEALTH MANPOWER

The Commission on Continuing Education and Health Manpower appointed the following two Ad Hoc Committees: Ad Hoc Committee on Continuing Medical Education and Ad Hoc Committee — 122nd Annual Session. These Ad Hoc Committees implemented directives of the MSMA Council, and details of the Committee action can be found in the Ad Hoc Committee reports published herein.

The members of this Commission reviewed the responses obtained from the continuing medical education questionnaire distributed during each scientific session of the 121st Annual meeting. It was agreed that the information obtained was inconclusive. A similar survey will be conducted during the 122nd Annual Meeting to obtain geographic specialty distribution and other data that will be helpful in the future direction of the MSMA Continuing Medical Education Program.

The MSMA Council referred Resolution #10, "Accreditation of Paramedical Personnel," to this Commission. The MSMA has opposed licensure of additional health personnel since the early 1970s. It has been determined that licensure of more paramedical personnel tends to split the health care delivery system because quality of health care cannot be assured by licensure any more than by certification. It was the recommendation of this Commission that Resolution #10 be tabled and that a study of additional paramedical licensure by and for the Missouri State Medical Association would fulfill the need of this resolution.

During 1979, the Commission, with the cooperation of the Commission on Interspecialty Medicine, formulated 29 scientific sessions for the 122nd Annual Session. The scientific portion of the 122nd Annual Session has been approved by the American Medical Association for Category I credit and it is also approved for prescribed and elective hours by the American Academy of Family Physicians.

GEORGE H. LADYMAN, *Chairman*
L. ARDEN ALMQUIST
WILLIAM D. BRADSHAW
MANUEL R. COMAS
JOHN C. SOUCY
CHARLES A. WORLEY
GERARD M. CALLAGHAN
CHARLES M. MULLICAN
LARRY OZENBERGER
GEORGE D. COMFORT
RONALD T. HILL
WILBUR A. MULLARKY
MARVIN A. SINGLETON
W. WAYNE BOYDSTON
W. THOMAS MORGAN, JR.

REPORT OF THE AD HOC COMMITTEE — 122ND ANNUAL SESSION

The members of this Committee reviewed the critique sheets of the scientific sessions sponsored during the 121st Annual Session at the Chase-Park Plaza Hotel in St. Louis. It was felt that in the future, the number of scientific sessions should be limited to five concurrent sessions to maximize attendance during each program and also to alleviate the conflicts between scientific sessions.

After reviewing a recent survey of eight surrounding states

concerning the respective associations' policies on honorariums provided during annual meetings, this Committee is recommending that the present \$150.00 honorarium be continued for future Annual Sessions. However, should a speaker continue his presentation for the second day, this amount will be adjusted accordingly.

The Ad Hoc Committee commended the quality of programs sponsored by the specialty societies and the voluntary health agencies during the 121st Annual Session.

GEORGE H. LADYMAN, *Chairman*
WILLIAM D. BRADSHAW
RONALD T. HILL
MARVIN A. SINGLETON
CHARLES N. MULLICAN
WILLIAM C. ALLEN
W. WAYNE BOYDSTON
JOHN M. LAIRD, JR.

REPORT OF THE AD HOC COMMITTEE ON CONTINUING MEDICAL EDUCATION

In 1979, the Ad Hoc Committee on Continuing Medical Education accredited two institutions as a sponsor for continuing medical education activities and resurveyed 12 institutions and organizations. The institutions surveyed initially for continuing medical education are as follows: Boone County Hospital, Columbia, and St. Anthony's Medical Center, St. Louis. Institutions resurveyed are as follows: Kansas City Surgical Society, Kansas City; Trinity Lutheran Hospital, Kansas City; Baptist Memorial Hospital, Kansas City; St. John's Medical Center, Joplin; North Kansas City Memorial Hospital, North Kansas City; St. Francis Mercy Hospital, Washington; Mid-West Columbia Regional Hospital, Columbia; Methodist Medical Center, St. Joseph; Fairfax Community Hospital, Fairfax; Missouri Chapter, American College of Surgeons, Springfield; St. Louis Metropolitan Medical Society, St. Louis; and Academy of Health Professions, Kansas City.

From July 1, 1977 to July 25, 1979, the AMA shared the responsibility with six other organizations operating under the name of the Liaison Committee on Continuing Medical Education (LCCME). The AMA provided staff and financial support and maintained the accreditation records. On July 25, 1979, the AMA withdrew from the LCCME. Shortly after this time, other former member-organizations of the original LCCME have joined together to conduct an accreditation program using the name "Liaison Committee on Continuing Medical Education."

On Dec. 10, 1979, the Ad Hoc Committee on CME initiated a phone conference to decide which of the two organizations Missouri would support in the future. The Missouri State Medical Association strongly supported the AMA's action to withdraw from the LCCME and the members of this Ad Hoc Committee strongly support the AMA's resumption of the Continuing Medical Education Program.

In April, 1979, the MSMA was reaccredited by the LCCME as a sponsor for continuing medical education activities for an additional four years and this Ad Hoc Committee agreed to continue its relationship with the LCCME for the duration of this accreditation.

GEORGE H. LADYMAN, *Chairman*
JOHN R. DIXON
PATRICIO C. AVILA
ROBERT H. RAMSEY
JOHN C. SOUCY
WILLIAM D. BRADSHAW
W. WAYNE BOYDSTON
GEORGE X. TRIMBLE
MARVIN A. SINGLETON
BERNARD DRAPER

WHEN ANXIETY AND TENSION MAGNIFY PAIN

IN MUSCULOSKELETAL DISEASE*



A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC[®] [™]

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlori-

azepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Respiratory depression may be shallow and slow. CNS stimulants, e.g., caffeine, Metrazol, or am-

phetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute neutrophilic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and institution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug. Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdose with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdose with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

Wyeth Laboratories
Philadelphia, Pa 19101



FOR MODERATE PAIN

A therapeutic dose of acetaminophen in one tablet

A therapeutic dose of two complementary analgesics

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdosage).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see Warnings). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypotension, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237 2406-2407, 1977). Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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**REPORT OF COMMISSION ON
MEDICAL-LEGAL AFFAIRS**

The Conjoint Medical-Legal Committees of the Missouri State Medical Association, Missouri Association of Osteopathic Physicians and Surgeons and the Missouri Bar Association met on Jan. 5, 1980 in Columbia. The MSMA Commission met on Aug. 18, 1979 to discuss matters of specific concern to the MSMA.

In August, the Commission discussed several resolutions adopted by the MSMA House of Delegates and referred to this Commission. Substitute Resolution #6 and #20 (A-79) regarding Professional Liability Review Boards was discussed and the Commission asked that a constitutional statute be drafted that would contain stronger provisions than the original law. Until that time, or should this be deemed as not possible, then voluntary panels would be encouraged. Agreement to establish panels on a voluntary basis was the consensus of the conjoint committee in January.

Resolution #8 relating to society action against unqualified expert medical witnesses was introduced by the Commission to the Interim House of Delegates and was approved. A related resolution (Resolution #7), encouraging the establishment of a national clearinghouse to monitor testimony by expert witnesses also was introduced and adopted. The MSMA Bylaws have been changed as directed in Resolution #8 (I-79).

Resolution #15 (A-79) relating to Alcoholic Traffic Offenders was investigated by staff. It was determined that referral programs such as those mentioned in the resolution are available throughout Missouri.

Finally, Resolution #21 (A-79) regarding awards for punitive damages was referred to the Commission. All Commission members received a report prepared by a UMC legal fraternity regarding this issue. The decision has not yet resulted in an increase in pleadings for punitive damages.

Legislative topics dominated the January meeting of the conjoint committee. All groups agreed to support or, at least, not object to legislation providing a definition of death; adding LPN's to the Good Samaritan Law; revising the statute of limitations for legal malpractice; permitting attorneys to establish professional liability insurance companies; and creating a procedure for establishing a living will. The MSMA will continue to support Collateral Sources legislation and the Bar will continue to oppose such legislation. All groups agreed that legislation assuring patient access to medical records is in need of several amendments, but could be acceptable if so amended. Finally, the Bar was asked to review an AMA model bill on confidentiality of medical records. The MSMA would like to introduce this legislation during the next legislative session.

During each of the two meetings of the Commission, members received an update on activities of MOMEDICO, whose birth was the result of activities of the Commission. MOMEDICO was congratulated for an impressive record and a job well done.

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VICENTE DELES

EDWARD BARE
DAVID W. HALL

**REPORT OF THE COMMISSION ON
INTER SPECIALTY MEDICINE**

The Commission on Interspecialty Medicine met on April 19, 1979 at the Chase-Park Plaza Hotel in St. Louis and on Nov. 10, 1979 at the Ramada Inn in Columbia.

As directed by the MSMA Council, the chairman presented three referred resolutions to the Commission for its consideration. Resolution #13, calling for the formation of an Ad Hoc Committee on Mental Health, and Resolution #8, calling for legislative efforts to secure passage of physician-directed hospice care for the terminally ill, were passed and referred back to the MSMA Council. Resolution #24, calling for endorsement of house calls by physicians, was tabled.

The Commission again considered the mechanism by which a procedure on the Obsolete and Ineffective Procedures list might be removed. The Commission reiterated its earlier position, in which a procedure may be removed only by specialty agreement and further consideration by the Commission.

The Chairman informed the Commission of a proposed federal rule change regarding clinical laboratories. As a result, this resolution was introduced and passed, emphasizing MSMA objections to these changes.

As a result of news articles on rapid weight-loss clinics and the concerns for health risks involved, the Commission introduced an informative resolution, which was passed.

The Commission also considered a resolution concerning the application of podiatrists for hospital privileges. This resolution was passed and referred back to the Council for implementation.

The Commission would like to express its appreciation for the cooperation and interest of those who have made these accomplishments possible.

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REPORT OF COMMISSION ON PUBLIC AFFAIRS

Again in 1979, the Commission on Public Affairs sponsored an interesting and informative public relations workshop on May 12 at the Ramada Inn in Columbia.

Twenty-six physicians and auxiliary members attended this communications training seminar, which was designed to encourage physician involvement in radio and television talk shows. Conducted by representatives from the Burroughs Wellcome Company and from Missouri media, the seminar included actual interview experience.

The Commission on Public Affairs held its own meeting

(Continued on page 366)

Changes in MSMA Bylaws

The following bylaws amendments were adopted by the House of Delegates at the 1980 MSMA Annual Session.

In accordance with the Constitution and Bylaws, these changes were approved by a two-thirds vote of the delegates present after both had been properly submitted to the House of Delegates and had laid on the table for one day.

CHAPTER III. House of Delegates

Section 1(g) Only duly elected delegates have the privilege of the

floor at meetings of the House of Delegates. However, any delegate may request the privilege of the floor for any other individual, which privilege may be granted or denied by the speaker, subject to disapproval by a majority vote of the House.

CHAPTER VIII. Dues and Assessments

Section 1(b). An assessment of \$10.00 per year on each active member of the Association shall be applicable for a three-year period beginning in 1981. The assessment shall be payable with the dues of the Association, and the monies collected therefrom shall be remitted to the Missouri State Medical Foundation.

Resolutions

Resolution #1 — Privilege of the Floor

(Introduced by St. Louis Metropolitan Medical Society)

Substitute Resolution #1

(Substitute Resolution #1 was proposed in lieu of Resolutions #1 and #2.)

Resolved, that only duly elected Delegates have the privilege of the floor at meetings of the House of Delegates. However, any Delegate may request the privilege of the floor for any other individual, which privilege may be granted or denied by the Speaker, subject to disapproval by a majority vote of the House.

(Substitute Resolution #1 was adopted.)

Resolution #2 — Privilege of the Floor

(Introduced by Greene County Medical Society)

(Refer to Resolution #1 for action on Resolution #2.)

Resolution #3 — CT Scanners

(Introduced by James C. Cope, M.D., Delegate-at-Large)

Substitute Resolution #3

Resolved, that the MSMA uses all its influence to have the Department of Health and Human Services restrictions on CT scanner technology modified, and be it further

Resolved, that the Missouri Delegates to the AMA be instructed to present a similar resolution to the AMA.

(Substitute Resolution #3 was adopted.)

Resolution #4 — Credentialing of Physicians Assistants Practicing in Missouri

(Introduced by Robert M. Woolsey, M.D., St. Louis Metropolitan Medical Society)

Substitute Resolution #4

Resolved, that the MSMA reaffirms its position opposing any type of credentialing of physician assistants pending completion of the current studies being done by the AMA.

(Resolution #4 was tabled.)

Resolution #5 — Proper Care for All Patients

(Introduced by Lake of the Ozarks Medical Society)

Substitute Resolution #5

Resolved, that the MSMA and individual members support the concept that necessary medical care shall be available without regard

for ability to pay, and be it further

Resolved, that the MSMA works with the Governor, State Legislature and the Division of Family Services to achieve a reasonable level of compensation for providing care under Title XIX.

(Substitute Resolution #5 was adopted as amended.)

Resolution #6 — AMA Appointments to National Education Councils

(Introduced by Raymond O. Frederick, M.D., St. Louis Metropolitan Medical Society)

Substitute Resolution #6

Resolved, Missouri Delegates to the American Medical Association should encourage appointment of qualified physicians in private practice to serve on national educational councils, committees and commissions in which the AMA participates.

(Substitute Resolution #6 was adopted as amended.)

Resolution #7 — Administration of Continuing Medical Education

(Introduced by Raymond O. Frederick, M.D., St. Louis Metropolitan Medical Society)

Substitute Resolution #7

Resolved, that the American Medical Association stands firm in its efforts in support of the concept that continuing medical education accrediting be conducted at the state level and that there should be only one CME accrediting body and that body be the American Medical Association.

(Substitute Resolution #7 was adopted as amended.)

Resolution #8 — Support of the Diploma Nursing Schools

(Introduced by Raymond O. Frederick, M.D., St. Louis Metropolitan Medical Society)

Substitute Resolution #8

Resolved, that the MSMA supports all present forms of nursing education as being essential to meeting the health care needs of the state and local community, and be it further

Resolved, that the Delegates of the Missouri State Medical Association to the House of Delegates of the AMA present a similar resolution to the next appropriate meeting of that body requesting that the American Medical Association uses whatever influence and methods it may have to support all present forms of nursing education.

(Substitute Resolution #8 was adopted as amended.)

Resolution #9 — Physician Privacy in Professional Liability Actions

(Introduced by Cape Girardeau County Area Medical Society)

Resolved, that the Missouri State Medical Association undertakes efforts to secure the introduction of legislation in the Missouri General Assembly which would exclude from the meaning of "public record," the name, place of practice or residence of any physician against whom a professional liability action has been commenced in any court of law in the state of Missouri and would prohibit the publication of such name, place of practice or residence until a final verdict has been rendered by such trial court.

(Resolution #9 was not adopted.)

Resolution #10 — Eligibility for Missouri State Medical Foundation Loans

(Introduced by Arthur Freeland and Randy Silverstein, University of Missouri-Columbia Student Medical Society)

Substitute Resolution #10

Resolved, that the Missouri State Medical Foundation requires membership in their State Medical Association for those medical students eligible for membership and receiving financial assistance from the Foundation.

(Substitute Resolution #10 was adopted as amended.)

Resolution #11 — Proposed Definition of the Practice of Medicine

(Introduced by Albert J. Campbell, M.D., Pettis County Medical Society)

Resolved, that the MSMA House of Delegates goes on record as favoring the Definition of the Practice of Medicine as contained in the Proposed Rule #4CSR 150-2.080 Definition of Practice of Medicine, a copy of which follows:

Proposed Definition of the Practice of Medicine

(1) The practice of medicine shall mean:

(A) Holding one's self out to the public within this state as being able to diagnose, treat, prescribe for, palliate, or prevent any human disease, ailment, pain, injury, deformity, or physical or mental condition, whether by the use of drugs, surgery, manipulation, electricity, or any physical, mechanical, or other means whatsoever; or

(B) Suggesting, recommending, prescribing, or administering any form of treatment, operation, or healing for the intended palliation, relief, or cure of any physical or mental disease, ailment, injury, condition, or defect of any person with the intention of receiving therefor, either directly or indirectly, any fee, gift, or compensation whatsoever; or

(C) Maintaining or using an office or other place for the purpose of examining or treating persons afflicted with disease, injury or defect of body or mind; or

(D) Using the title, "M.D." or "D.O.," or its equivalent, or any word or abbreviation to indicate or induce others to believe that one is engaged in the diagnosis or treatment of persons afflicted with disease, injury, or defect of body or mind, except as otherwise expressly permitted by the laws of this state enacted relating to the practice of any limited field of the healing arts.

(E) The word "diagnose," as used in this definition, means to examine in any manner another person, parts of a person's body, substance, fluids or materials excreted, taken or removed from a person's body, or produced by a person's body, to determine the source, nature, kind or extent of a disease or other physical or mental

condition, or to attempt to so examine or to determine, or to hold one's self out or represent that an examination or determination is being made or to make an examination or determination upon or from information supplied directly or indirectly by another person, whether or not in the presence of the person making or attempting the diagnosis.

(It was voted to refer Resolution #11 to the MSMA Council.)

Resolution #12 — Continued Assessment for the Missouri State Medical Foundation

(Introduced by the MSMA Council)

Resolved, that an assessment of \$10.00 per year on each active member of the Association be continued for a three-year period beginning in 1981. This extension of the \$10.00 assessment annually of active members shall be for the years 1981, 1982 and 1983. The assessment shall be payable with the dues of the Association and the monies collected therefrom shall be remitted to the Missouri State Medical Foundation.

(Resolution #12 was adopted.)

Resolution #13 — Board of Healing Arts Report

(Introduced by George Bohigian, M.D., St. Louis Metropolitan Medical Society)

Substitute Resolution #13

Resolved, that the MSMA President appoints a committee for liaison with the State Board of Registration for the Healing Arts.

(Substitute Resolution #13 was adopted.)

Resolution #14 — AMA Endorsement of All American Medical Hall of Fame

(Introduced by Max S. Franklin, M.D. St. Louis)

Resolved, that the Missouri Delegation to the American Medical Association's House of Delegates submits a resolution to the 1980 Annual Meeting of the AMA requesting endorsement of the concept without obligation for financial support for the All American Hall of Fame in St. Louis, Missouri.

(Resolution #14 was adopted.)

Resolution #15 — Certificate of Membership

(Introduced by Gary A. Dyer, M.D., Buchanan County Medical Society)

Resolved, that the MSMA has designed with Council final approval, an official Certificate of Membership, suitable for framing, and be it further

Resolved, that this Certificate be made available to each voting member of the MSMA who is in good standing and who desires to have one and is willing to pay for it, and be it further

Resolved, that this Certificate includes name and titles, component medical society name, class of membership, and date of initial induction to membership, and be it further

Resolved, that any member who should lose his or her good standing, shall be prepared to immediately return their certificate to MSMA when asked to do so.

(Resolution #15 was adopted as amended.)

Resolution #16 — Better Eye Care

(Introduced by Jackson County Medical Society)

Substitute Resolution #16

Resolved, that the Missouri State Medical Association adopts as policy that optometrists and other non-medical practitioners who regularly examine eyes be required to refer to a licensed physician

any patient who demonstrates any of the following signs or symptoms:

1. Inability to achieve 20/40 visual acuity in either eye;
2. Experience with flashes of light, floaters, transient dimming of vision, obscured vision, loss of vision or pain in an eye, the lid or the orbit;
3. Double vision or excessive tearing;
4. Permanent or temporary loss of any part of the visual field;

5. Presence of corneal opacities or abnormalities in the normally transparent media of the eye, the ocular fundus or the disc;
6. A tumor or swelling of the eyelids or orbit or protrusion of either eye;
7. Inflammation of the lid, conjunctiva or globe, with or without discharge.

(Substitute Resolution #16 was adopted.)

Committees and Commissions

(Continued from page 363)

just prior to the seminar and discussed future plans for the MSMA public relations programs. The commission members voted to acquire more public service announcements to distribute to Missouri TV stations. Three new spots prepared by the Florida Medical Association were adapted for the MSMA, reproduced by the University of Missouri-Kansas City School of Medicine and distributed in September.

The Commission also voted to suggest to the MSMA Council that a health information publication be produced to be placed in physicians' waiting rooms. The first edition of "Your Health" was mailed to all MSMA members in October.

The Commission discussed ways to promote more financial support for students who wish to attend MSMA Annual Sessions. At the Commission's suggestion, an article regard-

ing this was included in the July issue of MISSOURI MEDICINE.

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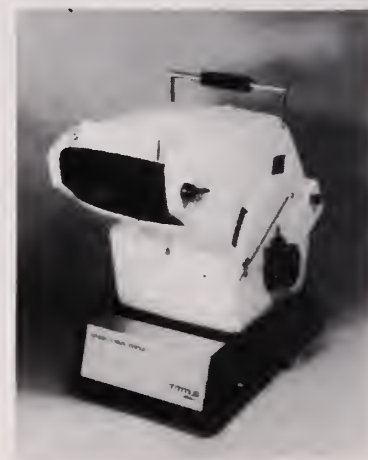
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 Berni, Anthony A., St. Louis
 Biddy, Ralph L., St. Louis
 Block, Arnold S., St. Louis
 Bohigian, George, St. Louis
 Bolinske, Robert E., St. Louis
 Bolton, Robert, St. Louis
 Bond, Leslie F., St. Louis
 Bradley, Richard V., St. Louis
 Brown, Seymour, St. Louis
 Burdge, Robert, St. Louis
 Callaghan, Gerard, St. Louis
 Callahan, D. E., St. Louis
 Casey, E. J., St. Louis
 Catanzaro, Rudolph E., St. Louis
 Cherre, Charles J., St. Louis
 Cole, Harry O., St. Louis
 Coleman, Michael, Lake Saint Louis
 Colosi, Nicholas J., Chesterfield
 Cooper, Thomas J., St. Louis
 Costello, Cyril J., St. Louis
 Cunningham, E. J., St. Louis
 Dahm, Charles, St. Louis
 Davis, Sheldon L., St. Louis
 Del Pizzo, Ferdinand, Jr., Creve Coeur
 De Ungria, P., St. Louis
 Devine, John B., St. Louis
 Dick, Earl, St. Louis
 Dick, Mary M., St. Louis
 Diehr, Maurice A., St. Louis
 Duvall, Joseph, St. Louis

Edwards, James, St. Louis
 Eggleston, Harry C., St. Louis
 Estrada, Corazon, St. Louis
 Estrada, Jesus I., St. Louis
 Evans, Lawrence G., Glendale
 Fallon, Richard H., St. Louis
 Florio, Mariano N., Florissant
 Flotte, Sylvester A., St. Louis
 Franklin, Max S., St. Louis
 Frederick, R. O., St. Louis
 Friedman, Paul L., St. Louis
 Gerowin, Lance, St. Louis
 Grindon, J. B., St. Louis
 Haddock, James N., Webster Groves
 Hagen, Duane, St. Louis
 Hamilton, E. G., St. Louis
 Hardy, David A., Clayton
 Hartwig, John A., St. Louis
 Hawk, Bray O., St. Louis
 Hawkins, George L., Webster Groves
 Hayek, Wesley E., Florissant
 Headrick, John A., St. Louis
 Henschel, Eugene V., St. Louis
 Hollo, Vencel, St. Louis
 Holt, William E., St. Louis
 Jean, J. T., St. Louis
 Jensen, Joshua E., II, St. Louis
 Jones, Otey S., St. Louis
 Kabir, Mohammed A., St. Louis
 Kayes, Jack, St. Louis
 Kellett, John G., Webster
 King, M. K., St. Louis
 Kloecker, R. J., Bridgeton
 Knopf, Harry, St. Louis
 Koenig, Marvin I., Florissant
 Korenblat, Phillip, St. Louis
 Kowert, Edward H., St. Louis
 Kronemer, Norton S., St. Louis
 Laird, John, St. Louis
 L'Ecuier, Jerome, St. Louis
 Leming, Bert H., Jr., Creve Coeur

Fourth Councilor District — 6

Clever, Victor, St. Charles
 Damron, E. O., Elsberry
 Del Pizzo, Ferdinand, St. Charles

Richardson, William R., Union
 Rother, Paul H., St. Charles
 Shaw, James T., Hermann

Fifth Councilor District — 69

Allen, William C., Columbia
 Anderson, Philip C., Columbia
 Anderson, Tom R., Columbia
 Arnold, R. C., Columbia
 Baker, A. Sherwood, Columbia
 Black, Samuel P. W., Columbia
 Bourgeois, Curtis, Columbia
 Bowe, Edwin E., Jefferson City
 Bradshaw, William D., Columbia
 Brukardt, Diane, Columbia
 Burns, Robert P., Columbia
 Chapel, J., Columbia
 Colwill, Jack, Columbia
 Cooper, Charles W., Jefferson City
 Cope, James C., Rocheport
 Denninghoff, James, Columbia
 Durst, Henry, Fulton
 Ekern, H. Peter, Mexico
 Exon, C. S., Jefferson City
 Fuchs, George J., Columbia
 Gaimor, Barry J., Columbia
 Gallagher, L. M., California
 Garner, Lynn M., Jefferson City
 Garner, Royal, Jefferson City
 Garrett, Glen H., Columbia
 Giffen, Larry, Jefferson City
 Griffin, William T., Columbia
 Groce, George D., Fulton

Guhleman, Henry V., Jr., Jefferson City
 Gunn, Victoria, Jefferson City
 Hall, C. Robert, Versailles
 Hansbrough, Gene C., Columbia
 Hubbell, Ira G., Columbia
 Hurst, Daniel, Columbia
 Husain, Arshad, Columbia
 Ide, Carl H., Columbia
 Jackson, Vernon, Fulton
 Jolly, Ben, Mexico
 Joseph, D. J., Columbia
 Kanagawa, Harold, Jefferson City
 Kauffman, Ruth, Versailles
 Landsbaum, Charles J., Jefferson City
 Lankford, Harold D., Mexico
 Lobeck, Charles, Columbia
 Matthews, John I., Jefferson City
 Millikan, L. E., Columbia
 Montie, Joseph, Columbia
 Moranville, B. A., Columbia
 Pearman, Carl C., Joplin
 Peterson, C. R., Columbia
 Rall, Kenneth L., Columbia
 Ritterbusch, James K., Fulton
 Russell, Garth S., Columbia
 Russell, Joseph P., Jefferson City

Simonds, John F., Columbia
Stauffer, Larry, Jefferson City
Stephenson, Hugh E., Columbia
Stewart, W. B., Columbia
Stuart, Byron M., Boonville
Summers, Joseph S., Jefferson City
Thomas, Regan, Columbia
Thomas, Robert M., Columbia

Sixth Councilor District — 25

Barone, Paul L., Nevada
Block, J. E., Sedalia
Boydston, Catherine O., Odessa
Boydston, W. Wayne, Odessa
Campbell, A. J., Sedalia
Cope, Joseph S., Lexington
Eklund, A. W., Pleasant Hill
Ellett, William H., Appleton City
Erickson, H. John, Sedalia
Hansen, A. L., Butler
Kelling, Jordan, Waverly
King, Richard H., Clinton
Knipschild, B. F., Marshall

Vandiver, V. D., Osage Beach
Wallace, Edgar S., Mexico
Wankum, Robert P., Jefferson City
Washburn, Loren, Versailles
Weinstein, Stephen H., Columbia
Werth, Joseph A., Jefferson City
Wilson, George P., Columbia

Lederer, C. M., Warrensburg
Magee, Robert L., El Dorado Springs
Maxson, T. Reed, Warrensburg
Meyer, Jerry L., Concordia
Moore, Candice A., Nevada
Moore, M. Ted, Nevada
Papreck, K. T., Marshall
Raynor, R., Marshall
Reid, James A., Bella Vista, Ark.
Riley, Charles, Richmond
Torontow, R. John, Nevada
Weltscheff, C. A., Lincoln

Seventh Councilor District — 201

Abercrombie, K., Kansas City
Abend, Mel, Kansas City
Alberg, Marvin R., Kansas City
Aldridge, John, Kansas City
Alfie, Salomon, Kansas City
Anderson, Raymond B., Kansas City
Arsenovic, Alexander, Kansas City
Ashby, Jennifer, Kansas City
Asher, Graham, Lee's Summit
Baer, A. J., Kansas City
Bailey, Hugh, Kansas City
Barelli, Pat, Kansas City
Bauer, Lafe W., Prairie Village, Kan.
Beck, Calvin E., Kansas City
Berry, Maxwell G., Kansas City
Biery, Richard, Kansas City
Botwin, Arnold, Kansas City
Bowser, John F., Kansas City
Brand, Stanley N., Kansas City
Brook, Charles J., Kansas City
Brown, Robert S., Kansas City
Brown, Menzie, Kansas City
Brumm, L. W., Kansas City
Bruner, Robert E., Kansas City
Bryan, William H., Kansas City
Buchanan, Barbara, Kansas City
Buchwach, Kenneth A., Kansas City
Buhler, Victor B., Kansas City
Butterworth, Nelson, Kansas City
Byars, Steven, Kansas City
Caldwell, John K., Kansas City
Carlson, Hjalmar, Kansas City
Caruso, Alfred A., Kansas City
Case, William F., Kansas City
Chandler, R. A., Kansas City
Chaudhary, M. Asghar, Overland Park, Kan.
Childs, Donna, Kansas City
Childs, Richard M., Kansas City
Clark, G. E., Kansas City
Clark, Irving H., Kansas City
Coleman, Robert L., Kansas City
Colom, George, Kansas City
Conn, Robert D., Kansas City
Cortner, Mary C., Kansas City
Cox, William L., Independence
Crouch, Thomas T., Kansas City
Crow, Martin L., Kansas City
Curtis, Calvin J., Kansas City
Davidson, Kendrick C., Leawood, Kan.
Dixon, G. David, Kansas City
Dixon, Vewiser L., Kansas City
Dlabal, L. J., Independence
Engelmann, C. E., Kansas City
Engleman, R., Kansas City
Eriesson, Samuel, Prairie Village, Kan.
Evans, Lawrence L., Kansas City
Fairchild, Robert C., Kansas City
Feist, George V., Kansas City
Fisher, James K., Kansas City
Fletcher, Robert, Kansas City

Forman, Louis, Kansas City
Forsythe, Robert W., Kansas City
Fowler, Fred D., Kansas City
Franklin, Curtis U., Jr., Kansas City
Fritzen, Thomas J., Kansas City
Goolsbee, Robert L., Shawnee Mission, Kan.
Graham, Wallace H., Kansas City
Griffith, John A., Kansas City
Grimes, Elwyn M., Kansas City
Hahn, Fred W., Kansas City
Haight, J. Max, Kansas City
Hall, John C., Kansas City
Hall, Ralph R., Kansas City
Hamburger, Stephen, Lenexa, Kan.
Hamlin, Howard H., Shawnee Mission, Kan.
Hannas, R. R., Jr., Kansas City
Hanson, E. J., Jr., Kansas City
Hanson, Karl, Jr., Kansas City
Hartwig, R. W., Mission Hill, Kan.
Hazen, Robert M., Kansas City
Hendrickson, Jon R., Kansas City
Herman, Edwin, Kansas City
Hickerson, William H., Independence
Hink, Frederick W., Independence
Hirsch, Joe E., Kansas City
Hodgson, F. H., Kansas City
Hooper, Samuel D., Sr., Grandview
Hollinger, L. A., Kansas City
Hunkeler, John D., Kansas City
Hunt, Thomas, Kansas City
Huse, William J., II, Kansas City
Hutson, Bruce P., Kansas City
Jacobs, Morton, Kansas City
Johnson, Dallas A., Kansas City
Jones, Samuel T., Kansas City
Kahn, Marvin, Kansas City
Kavanan, J. C., Kansas City
Kelly, Charles R., Kansas City
Kerr, H. Harper, Kansas City
Knoch, H. Hermit, Kansas City
Koontz, Paul, Kansas City
Kyger, John E., Independence
Latham, Raymond W., Kansas City
Lee, King Y., Kansas City
Linville, Howard E., Kansas City
Long, Stacy, Kansas City
MacGee, Edwin, Kansas City
McAllister, C. Kenneth, Kansas City
McCallister, Ben D., Kansas City
McCanse, Andrew, Kansas City
McCanse, Lynn, Kansas City
McIntosh, Donald, Kansas City
McIntyre, J. Donald, Kansas City
McLemore, Willie, Kansas City
Mangum, William, Kansas City
Masucci, Joseph, Kansas City
Matta, Camille S., Kansas City
Mauldin, Olin B., Jr., Kansas City
Medlicott, William J., Kansas City
Meiklejohn, D., Independence
Mikkelsen, Nancy R., Kansas City

Miller, Gerald L., Kansas City
Minnigerode, Lana, Kansas City
Minnigerode, T., Kansas City
Moore, Jack D., Kansas City
Moreano, Armando, Kansas City
Morgan, David B., Kansas City
Mules, Janet E., Kansas City
Mullen, Leo, Kansas City
Myers, George H., Jr., Kansas City
Nielson, Michael H., Independence
Noback, R., Kansas City
Novak, Edward, Leawood, Kan.
O'Hearne, John J., Kansas City
O'Kell, Richard T., Kansas City
Olson, Lloyd C., Kansas City
Oxley, Dwight, Kansas City
Ozar, Milton B., Kansas City
Pakula, Sidney F., Kansas City
Piebenga, Larry, Kansas City
Piepergerdes, Larry, Kansas City
Pingleton, Susan, Kansas City
Place, K. Craig, Kansas City
Pollak, Erich W., Overland Park, Kan.
Potts, D. A., Independence
Pucci, Gregory L., Kansas City
Quer, Erich A., Kansas City
Rau, Jerold M., Kansas City
Reister, Dorothy D., Shawnee Mission, Kan.
Reynolds, C. C., Kansas City
Rhodes, Andrew J., Independence
Robinett, Wade V., Kansas City
Sabates, Felix N., Kansas City
Samuelson, Edward A., Kansas City
Sanders, Donald C., Kansas City
Santorio, Carlos G., Kansas City
Sauer, Gordon, Kansas City
Schlozman, Daniel, Kansas City
Schottman, G. W., Kansas City
Shelden, Russell D., Kansas City
Siegel, Charles, Kansas City
Slickman, R. A., Kansas City

Smith, Katherine, Kansas City
Sneid, David S., Kansas City
Spalding, Wilber B., Jr., Kansas City
Staab, G. E., Kansas City
Stacey, Wallace, Independence
Stanley, Charles G., Kansas City
Steffen, Lawrence F., Overland Park, Kan.
Stelmach, Walter J., Kansas City
Stewart, Harry A., Kansas City
Stribling, Thomas L., Independence
Sulit, Arnulfo P., Kansas City
Szymanski, D. C., Kansas City
Throne, E. M., Kansas City
Tillema, David, Kansas City
Trowbridge, B. C., Kansas City
Twin, E. J., Kansas City
Underwood, Dick H., Kansas City
Valentine, John D., Shawnee Mission, Kan.
Vaughn, Jim, Kansas City
Valins, Eugene, Kansas City
Volk, George E., Leawood, Kan.
Wade, Frederick, Kansas City
Wall, Harry C., Kansas City
Weir, Robert K., Kansas City
Weisman, Edward B., Kansas City
Wells, John H., Kansas City
Wells, Stanley D., Kansas City
White, Charles H., Prairie Village, Kan.
White, James S., Kansas City
Wilhelm, W. F., Kansas City
Wilkinson, Charles B., Kansas City
Williams, Frank, Kansas City
Williams, George P., Kansas City
Wise, George W., Kansas City
Youll, Donald, Kansas City
Youmans, Ronald A., Kansas City
Young, James E., Kansas City
Ziemianski, Matthew, Kansas City
Zoller, David D., Kansas City

Eighth Councilor District — 62

Anderson, Paul B., Neosho
Barnhill, Floyd R., Springfield
Benson, Ron, Springfield
Bonebrake, M. D., Springfield
Brown, Jim, Springfield
Burkey, Jordan W., Springfield
Clarke, Michael, Springfield
Coller, Fred C., Springfield
Corry, F. M., Springfield
Domann, Darrel D., Springfield
Esparrago, F. R., Monett
Ferrell, Thomas E., Springfield
Fogle, Philip R., Springfield
Gaston, Samuel L., Joplin
Gentry, Michael, Springfield
German, Walter A., Springfield
Gillispie, Roy, Branson
Glover, Kenneth, Mt. Vernon
Goff, John, Joplin
Graves, Arthur, Mt. Vernon
Grim, Edward, Joplin
Gwin, Edward, Springfield
Hagen, Michael, Aurora
Hall, David W., Rogersville
H'Doubler, F. T., Jr., Springfield
H'Doubler, Peter B., Springfield
Hilton, Paul E., Joplin
Hubbard, Sally, Springfield
Ivy, H. B., Springfield
Johnston, Joseph L., Springfield
Lorenc, Ernest, Springfield

Lockhart, C. E., Springfield
Lurie, Hal, Springfield
Maddonell, Thomas M., Marshfield
McAlhany, H. J., Springfield
Manalo, Gil B., Jr., Carthage
Maple, Frank, Springfield
Menchetti, Don, Springfield
Merideth, Mary, Cassville
Moore, DeArmond, Springfield
Olive, G. C., Neosho
Pence, F. Wendell, Carthage
Penninger, W. H., Springfield
Peterson, S. S., Springfield
Quinn, Paul S., Springfield
Rios, Ruth, Bolivar
Roberts, Howard, Joplin
Ryan, Robert A., Springfield
Sauer, Paul E., Springfield
Schwartz, E. J., Springfield
Shane, Ramon A., Springfield
Simmons, Jess S., Jr., Joplin
Singleton, Marvin A., Joplin
Sullivan, Dan T., Springfield
Walker, William M., Springfield
Whitlock, C. C., Springfield
Willcoxon, Robert L., Joplin
Winsky, Arlen D., Springfield
Wolfe, James B., Springfield
Wong, George F., Kansas City
Wood, George H., Carthage
Wooldridge, Wilfred E., Springfield

Ninth Councilor District — 11

Cooper, Claude W., Thayer
Hasek, James A., Mountain Grove
Hasek, Martin, Mountain Grove
Mayuga, H. G., Cabool
Paskon, Seth, Salem
Russell, Barbara E., Rolla

Shahorek, George J., Waynesville
Smith, C. F., Willow Springs
Spears, Joe, Cabool
Wall, Joe A., Houston
Wiles, Jack N., West Plains

Tenth Councilor District — 25

Burford, Edwin K., Jr., Cape Girardeau
Chapman, J. A., Cape Girardeau
Cozean, Charles H., Cape Girardeau
Cundiff, H. Clay, Cape Girardeau
Clenn, T. J., Cape Girardeau
Hansbrough, E. T., Poplar Bluff
Heeb, Max A., Sikeston
Holcomb, John K., Cape Girardeau
Jung, Christopher H., Cape Girardeau
Jung, J. Marshall, Cape Girardeau
Kandalaft, Fuad, D.O., Dexter

Kasten, Melvin C., Cape Girardeau
Ladyman, George, Poplar Bluff
Lestmann, Henry E., Fairdealing
Masters, Ed., Sikeston
Pu, Pin H., Kennett
Rapp, Harold B., Cape Girardeau
Ritter, John, Cape Girardeau
Ritter, Raymond A., Cape Girardeau
Ritter, R. A., Jr., Cape Girardeau
Ruff, T. E., Poplar Bluff
Rutledge, John F., Crystal City
Sargent, John P., Sikeston
Turner, Kirby L., Poplar Bluff
Warrier, R., Ste. Genevieve

Guest Physicians — 52

Ackerman, M. J., Honolulu, Hawaii
Barsky, S., Oak Brook, Ill.
Bartusis, Mary Ann, Morrisville, Pa.
Benson, Earl B., Atlanta, Ga.
Brookhouser, Patrick E., Omaha, Neb.
Byrd, Richard Bourne, Scott Air Force Base, Ill.
Catalona, William, St. Louis
Collantes, Jose, Blue Springs
Decker, Cordon A., Oklahoma City, Okla.
Delmez, James, St. Louis
Denhart, Charles, Des Moines, Iowa
Diamond, Seymour, Chicago, Ill.
Dockhorn, Robert J., Kansas City
Favors, Adolphus C., Jr., Kansas City
Fortin, David, Kansas City
Hart, John, Jefferson City
Hunter, Robert B., Sedro Wolley, Wash.
Hurd, Marvin M., West Des Moines, Iowa
Isern, Henry, Kansas City
Kadas, Louis, Belleville, Ill.
Kasten, Mark C., Kansas City
Kestenbaum, Thelda, Kansas City
Kirkpatrick, Charles, Denver, Colo.
Koenig, W. C., Jr., Des Moines, Iowa

Kretschmar, R. M., Kansas City
Kumar, Adam A., Springfield, Ill.
Lederer, C. M., Independence
Lewis, Allen D., Chattanooga, Tenn.
MacLean, Ian C., Chicago, Ill.
McCormick, Andrew, Vancouver, Canada
McQueen, Robert C., Fenton
Melendez, José F., St. Joseph
Melia, B. J., Prairie Village, Kan.
Morgan, Charles H., Oklahoma City, Okla.
Naughton, John, Buffalo, N.Y.
Neal, M. Pinson, Jr., Richmond, Va.
Penn, George M., Topeka, Kan.
Perez, Jeannie O., St. Louis
Rees, William J., Glenview, Ill.
Rosenberg, E. William, Memphis, Tenn.
Russell, Nancy, Kansas City
Shair, Hilliard M., Quincy, Ill.
Sicard, Gregorio A., St. Louis
Smith, Byron, Kansas City, Kan.
Spiller, Rachel F., Houston, Tex.
Spiller, William F., Houston, Tex.
Stagnone, J., Albuquerque, N.M.
Talbot, C. Douglas, Atlanta, Ga.
Vidoloff, John, Springfield
Wagner, W. J., Peoria, Ill.
Waters, C. N., Salina, Kan.
Weigel, John, Kansas City

Student Medical Societies

University of Missouri-Columbia
Finley, Brian, Columbia
Freeland, Arthur, Columbia
Silverstein, Randy, Columbia
Webb, Kim, Columbia
University of Missouri-Kansas City
Shen, Anthony S., Kansas City
Wang, Anita, Kansas City

Washington University
Budd-Stofferahn, Dianne, Rock Hill
Piro, Lawrence, St. Louis
St. Louis University
Busse, Paul M., Clayton

There were 654 members, 52 guest physicians, 119 exhibitors, 161 MSMA Auxiliary members, 123 guests and 20 staff members. Total registration was 1,129.

In Memoriam

WHEREAS, *there have been 48 deaths among our members since the 1979 Annual Session, and*
WHEREAS, *each of these members is missed as an individual as well as for his contributions to the practice of medicine and to the Missouri State Medical Association, and*

WHEREAS, *the loss of each member is felt by all members, as well as his loved ones and close associates and the patients he has served with dedication, and*

WHEREAS, *condolences in the form of the Memoriam Perpetuum have been sent to the immediate family of each deceased member, therefore, be it*

RESOLVED, *that the House of Delegates now pays personal tribute by standing for a moment of silence in memory of each of the 48 following members we have lost and whose names will be recorded in the minutes of this Annual Session.*

Bartlett, Robert W., St. Louis
Bernreiter, Michael, Kansas City
Rose, Charles W., Kansas City
Fuchs, George J., Sr., Barnett
Hunter, Martin P., Kansas City
Mountjoy, Grace S., Manchester
Potter, Lee G., Kansas City
Althaus, Carl J., Ballwin
Houston Vincent, St. Louis
Napper, Marvin L., Ash Grove
Finger, Donald H., St. Louis
Langston, Walter R., Springfield
Greene, W. Wallace, Shawnee Mission, Kan.
Menendez, Manuel F., St. Louis
Hetlage, Louis P., Troy
Gibstine, Marvin H., Bridgeton

Fuson, Levi H., Savannah
Weed, Randal, St. Joseph
Schneider, Sam, Creve Coeur
Levy, Irwin, Ladue
Walker, James C., Kansas City
Reich, Harry A., St. Louis
Williams, Ray D., St. Louis
Davis, Kenneth A., Kansas City
Froelich, Edwin J., Lebanon
Kilker, Clarence H., Normandy
Smith, Rollin H., West Plains
Meriwether, Don R., St. Joseph
Lutz, Martin H., St. Louis
Streeter, Roderick D., St. Louis
Sheridan, Edmund R., St. Louis
Viraghaty, Julius G., Glencoe
Kane, Clyde E., St. Louis

Johnson, Edgar W., Jr., Lee's Summit
Johnson, Roy M., Foristell
Cordonnier, Justin J., St. Louis
Poor, Carl W., Neosho
Tjoflat, Oliver, St. Louis
Crossman, Robert W., Webster Groves
Goodman, Jonathan N., St. Louis
Deakin, V. Rogers, St. Louis
McKaskle, Clarence W., Jr., Caruthersville
Harwell, J. Lester, Springfield
Kettner, Edward G., Kansas City
Teiber, Fred W., St. Louis
Gafney, George T., St. Louis
Sydow, Henry A., Fulton
Rosenstein, Dan, Sikeston

LETTERS

Mr. Royal O. Cooper, Executive Secretary
Missouri State Medical Association
Jefferson City, Mo.

Dear Mr. Cooper:

I want to acknowledge the receipt of the beautiful 50-year pin in commemoration of my being a physician the past 50 years.

It was very thoughtful of you to send me the pin since I wasn't able to attend the annual banquet in Kansas City to receive the pin personally. I would appreciate it if you would extend my thanks and best wishes to Dr. Andrew McCanse and to Dr. Richard Bradley, whom I have had the pleasure of knowing for some time.

At the 50th reunion with my class who received their M.D. degrees from Washington University Medical School in 1930, several of the men who have practiced medicine in Missouri the past 50 years proudly displayed their pins in their coat lapels. I thought you would like to know this.

I will cherish the pin and its significance for the rest of my life.

Again, my thanks to you and everyone concerned.

Sincerely,

Joseph M. Orenstein, M.D.
St. Louis

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Tenuate Dospan®

(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdose. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in mid-morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdose include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phenitamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdose.

Product Information as of April, 1976
MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

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References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon (Dillon), R.H., and Leyland, H.M. A comprehensive review of diethylpropion hydrochloride. In, *Central Mechanisms of Anorectic Drugs*, S. Garattini and R. Samanin, Ed., New York, Raven Press, 1978, pp 391-404.

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For prescribing information see opposite page

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antianxiety/antisecretory/antispasmodic
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and irritable bowel syndrome*

Librax[®]

Please consult complete prescribing information, a summary of which follows:

*

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or cimetidine Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librax[®] (chlordiazepoxide HCl/Roche) to known addic-

tion-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression. Suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug

and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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See next page for brief summary of
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DESCRIPTION

Rabies Immune Globulin (Human)—Hyperab[®] is a sterile solution of antirabies gamma globulin (IgG) concentrated by cold alcohol fractionation from plasma of donors hyperimmunized with rabies vaccine. Hyperab[®] globulin is a 16.5% $\pm$ 1.5 solution of gamma globulin from venous blood in 0.3M glycine preserved with 1:10,000 Thimerosal (a mercury derivative). Its pH is adjusted with sodium carbonate. The product is standardized against USA Standard Antirabies Serum. The USA unit of potency is equivalent to the International Unit (IU) for rabies antibody.

This product is prepared from human venous plasma. Each individual unit of plasma has been found nonreactive for hepatitis B surface antigen using the radioimmunoassay method of counter-electrophoresis.

INDICATIONS

Treatment of rabies, once clinical disease becomes apparent, is rarely if ever successful. Rabies vaccine (duck-embryo origin, Lilly Laboratories) with or without Rabies Immune Globulin (Human)—Hyperab[®] should therefore be given to all persons suspected of exposure to rabies, particularly to severe exposure. Whenever possible, Hyperab[®] globulin should be injected as promptly as possible after exposure. If initiation of treatment is delayed for any reason, however, Rabies Immune Globulin (Human) should be given just the same, regardless of the interval between exposure and treatment.

Rabies virus is usually transmitted by the bite of a rabid animal, but can occasionally penetrate abraded skin with the saliva of infected animals. Progress of the virus after exposure is believed to follow a neural pathway and the time between exposure and clinical rabies is a function of the proximity of the bite (or abrasion) to the central nervous system and the dose of virus injected. The incubation is usually 2 to 6 weeks, but can be longer. After severe bites about the head and neck, it may be as short as 10 days.

After initiation of the vaccine series, it takes 2 weeks or longer for development of immunity to rabies. Since most vaccine failures have occurred in cases of severe exposure, the value of immediate immunization with preformed rabies antibody cannot be over-emphasized.

Recommendations for use of passive and/or active immunization after exposure to an animal suspected of having rabies were detailed by WHO, and by the US Public Health Service Advisory Committee on Immunization Practices (ACIP).

INJECTION PROCEDURE

A portion of the Hyperab[®] globulin dose should be used to infiltrate the wound. The rest is injected intramuscularly.

CONTRAINDICATIONS

Rabies Immune Globulin (Human)—Hyperab[®] is contraindicated in repeated doses, once vaccine treatment has been initiated. Repeating the dose may bring about interference with full expression of active immunity expected from the vaccine. Hyperab[®] globulin is also contraindicated in individuals who are known to have an allergic response to gamma globulin or thimerosal.

PRECAUTIONS

NEVER ADMINISTER Hyperab[®] globulin INTRAVENOUSLY.

ADVERSE REACTIONS

Slight soreness at the site of injection, and slight temperature elevation may be noted at times. Sensitization to repeated injections of human globulin is extremely rare.

In the course of routine injections of a large number of persons with human gamma globulin, there have been a few isolated occurrences of angioneurotic edema, nephrotic syndrome, and anaphylactic shock after injection. Because of their rarity, it is difficult to determine whether such reactions are incidental or causally related to the gamma globulin.

No instances of transmission of hepatitis B (homologous serum jaundice) have been reported from the use of human gamma globulin prepared by the fractionation methods employed by Cutter Laboratories, Inc.

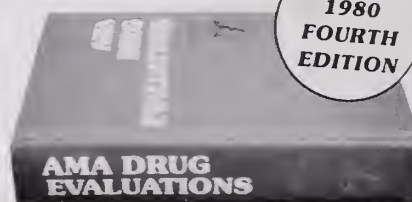
HOW SUPPLIED

Rabies Immune Globulin (Human)—Hyperab[®] is packaged in 2-ml and 10-ml vials with a potency of 150 International Units per ml (IU/ml). The 2-ml vial contains a total of 300 IU which is sufficient for a child weighing 15 kg (33 lb). The 10-ml vial contains a total of 1500 IU which is sufficient for an adult weighing 75 kg (165 lb).

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Missouri State Medical Foundation

Annual Meeting

**Crown Center Hotel, Kansas City
Friday, April 18, 1980**

The Annual Meeting of the Missouri State Medical Foundation was called to order by Dr. Max Franklin, president.

The minutes of the 1979 Annual Meeting, the activities report for the MSMF for 1979-1980 and the auditor's report were approved as published in *MISSOURI MEDICINE*.

Dr. Byron Stuart, chairman, presented the report of the Nominating Committee. Dr. Franklin was re-elected to serve another five-year term and Dr. Larry P. Courter was elected to serve a five-year term on the Board of Trustees. The ex-officio member of the Board will be Dr. Richard Bradley, St. Louis, president of the MSMA.

Following an extensive discussion concerning Resolution #10, those present agreed to support the concept of this resolution. This resolution was again to be considered at the Second Session of the House of Delegates.

It was agreed by those present that the MSMF Constitution and Bylaws should be revised and staff was asked to contact its attorney to draft a revision of the present Constitution and Bylaws to be considered during the next Board of

Trustees meeting.

It was moved and seconded that a medical student should be an active member of the Board of Trustees to serve a one-year term.

Having no further business, the meeting was adjourned.

Board of Trustees Meeting

**Crown Center Hotel, Kansas City
Friday, April 18, 1980**

The meeting of the Board of Trustees of the Missouri State Medical Foundation was called to order by Max S. Franklin, M.D., president, immediately after the annual meeting.

On behalf of the Nominating Committee, Byron M. Stuart, M.D., chairman, presented the following slate of officers for one-year terms:

President — Max S. Franklin, M.D., St. Louis

Vice-President — Miles C. Whitener, M.D., St. Louis County

Secretary-Treasurer — Robert H. Tanner, Jefferson City

Assistant Secretary — Ron Ellison, MSMA Staff

The above members were elected by acclamation.

The meeting was adjourned.

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New Members

Douglas A. Anderson, M.D., 1235 E. Cherokee, Springfield 65804, has become a member of Greene County Medical Society. Dr. Anderson is a native of Grand Island, Neb., received his preliminary education at Doane College and his M.D. degree at the University of Nebraska in 1973. He specializes in pathology.

John R. Bandy, M.D., Children's Mercy Hospital, 24th and Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Bandy is a native of Litchfield, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1977. He specializes in pediatrics.

Robert L. Bender, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Bender is a native of Pasadena, Calif., received his preliminary education at Duke University and his M.D. degree at St. Louis University in 1978. He specializes in family practice.

William G. Bowen, M.D., 4652 Maryland Ave., St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Bowen is a native of Salisbury, N. C., received his preliminary education at Davidson College and his M.D. degree at the University of North Carolina in 1974. He specializes in internal medicine.

Mary E. Brothers, M.D., 2727 Main, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Brothers is a native of Boston, Mass., received her preliminary education at Saint Mary's College and her M.D.

degree at the University of Kansas in 1974. She specializes in general surgery.

Luke L. Burchard, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Burchard is a native of Chicago, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1979. He specializes in family practice.

Donald L. Coleman, M.D., 800 N. Lindbergh Blvd., St. Louis 63166, has become a member of St. Louis Metropolitan Medical Society. Dr. Coleman is a native of Granite City, Ill., received his preliminary education at St. Louis University and his M.D. degree at the University of Illinois in 1962. He specializes in aerospace medicine.

James Collins Corder, M.D., 6420 Clayton Rd., St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Corder is a native of McAlester, Okla., received his preliminary education at Oklahoma State University and his M.D. degree at St. Louis University in 1978. He specializes in internal medicine.

John Bernard Costello, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Costello is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1977. He specializes in internal medicine.

Robert Charles Dunn, Jr., M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Dunn is a native of St. Louis, received his preliminary education at Yale University and his M.D. degree at St. Louis University in 1968. He specializes in neurosurgery.

Jim Howard Earls, M.D., 407 Professional Building, 609 Cherry, Springfield 65806, has become a member of Greene County Medical Society. Dr. Earls is a native of Shawnee, Okla., received his preliminary education at Oklahoma Baptist University and his M.D. degree at Oklahoma University in 1962. He specializes in psychiatry.

Donald E. Heins, M.D., 702 Jule St., St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Heins is a native of Chappel, Neb., received his preliminary educa-

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tion at the University of Nebraska and his M.D. degree at the University of Nebraska in 1953. He specializes in radiology.

Pamella S. Gronemeyer, M.D., #7 Haddington Ct., Clayton 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. Gronemeyer is a native of St. Louis, received her preliminary education at Washington University and her M.D. degree at Tufts University in 1977. She specializes in pathology.

Mary George Joseph, M.D., 1755 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Joseph is a native of India, received her preliminary education at C.M.S. College and her M.D. degree at Medical College Kerala University in 1969. She specializes in internal medicine.

Yvonne M. Knighten, M.D., Suite 302, 1515 W. Truman Rd., Independence 64050, has become a member of Jackson County Medical Society. Dr. Knighten is a native of Louisiana (Mo.), received her preliminary education at San Jose State University and her M.D. degree at the University of California-San Francisco in 1973. She specializes in dermatology.

Hun Tae Lee, M.D., 1502 E. Broadway, Columbia 65201, has become a member of Boone County Medical Society. Dr. Lee is a native of Korea, received his preliminary education at Yonsei University and his M.D. degree at Yonsei University in 1971. He specializes in diagnostic radiology.

David B. Marrs, M.D., 4950 Audubon Ave., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Marrs is a native of Temple, Tex., received his preliminary education at Rice University and his M.D. degree at the University of Texas Southwestern in 1978. He specializes in dermatology.

Stephen A. McCray, M.D., 2900 N.E. 60th, Kansas City 64119, has become a member of Clay County Medical Society. Dr. McCray is a native of Topeka, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1976. He specializes in anesthesiology.

Anna R. Neisen, M.D., 6420 Clayton Rd., St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Neisen is a

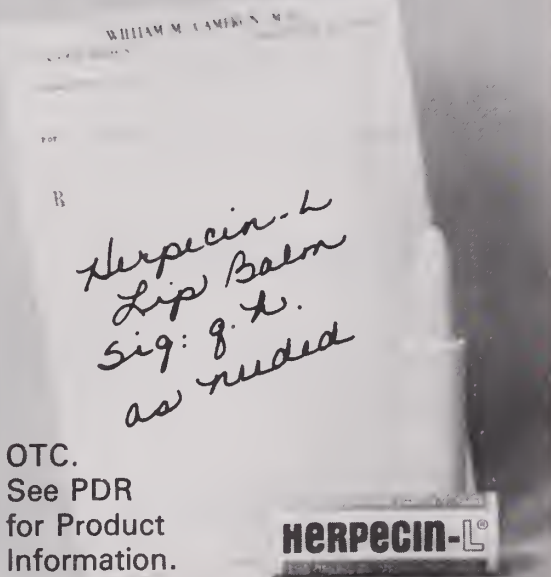
native of St. Louis, received her preliminary education at Marywood College and her M.D. degree at St. Louis University in 1975. She specializes in internal medicine.

Richard W. Nysewander, M.D., 1034 S. Brentwood Blvd., Suite 800, St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Nysewander is a native of Salt Lake City, Utah, received his preliminary education at Georgia Institute of Technology and his M.D. degree at the Medical College of Georgia in 1975. He specializes in psychiatry.

Timothy F. O'Keefe, M.D., 6150 Oakland, St. Louis 63139, has become a member of St. Louis Metropolitan Medical Society. Dr. O'Keefe is a native of Troy, N. Y., received his preliminary education at Canisius College and his M.D. degree at St. Louis University in 1976. He specializes in internal medicine.

Pedro C. Padilla, M.D., 10010 Kennerly Rd., St. Louis 63128, has become a member of St. Louis Metropolitan Medical Society. Dr. Padilla is a native of the Philippines, received his pre-

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liminary education at the University of the East and his M.D. degree at the University of the East in 1973. He specializes in urology.

Nalini A. Reddy, M.D., 1515 Lafayette, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Reddy is a native of India, received her preliminary education at G. A. College and her M.D. degree at Kurnool Medical College in 1970. She specializes in ophthalmology.

Walter A. Schroeder, Jr., D.O., 6150 Oakland, St. Louis 63139, has become a member of St. Louis Metropolitan Medical Society. Dr. Schroeder is a native of Anna, Ill., received his preliminary education at Southern Illinois University and his D.O. degree at the Kansas City College of Osteopathic Medicine in 1979. He specializes in otorhinolaryngology.

Karen L. Scruggs, M.D., 801 S. Brentwood Blvd., Clayton 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. Scruggs is a native of Winston-Salem, N. C., received her preliminary education at Macalester College and her M.D. degree at Washington University in 1973. She specializes in pediatrics.

Michael D. Shaw, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Shaw received his preliminary education at Fisk University and his M.D. degree at Meharry Medical College in 1976. He specializes in pediatrics.

Mark F. Sinnett, M.D., Truman Medical Cen-

ter East, Little Blue & Lee's Summit Rd., Kansas City 64139, has become a member of Jackson County Medical Society. Dr. Sinnett is a native of Kansas City, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1976. He specializes in internal medicine.

Steven M. Sobol, M.D., Dept. of Otolaryngology, Barnes Hospital, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Sobol is a native of New York, N. Y., received his preliminary education at Syracuse University and his M.D. degree at Syracuse University in 1976. He specializes in otolaryngology.

Tom G. Sullivan, M.D., 240 Research Medical Office Building, 6400 Prospect, Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Sullivan is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1971. He specializes in obstetrics and gynecology.

Gene M. Vialle, D.O., Truman Medical Center, 2301 Holmes, Kansas City 64109, has become a member of Jackson County Medical Society. Dr. Vialle is a native of Kansas City, received his preliminary education at the University of Missouri-Kansas City and his D.O. degree at the Kansas City College of Osteopathic Medicine in 1976. He specializes in anesthesiology.

In Memoriam

John Gilbert McSwiney, M.D., 10 Adams St., Ferguson 63135; a graduate of St. Louis University, 1926; member of St. Louis Metropolitan Medical Society; age 76; died April 26, 1980.

James W. Boger, M.D., 500 W. 16th, Sedalia 65301; a graduate of Ohio State University, 1921; member of Pettis County Medical Society; age 85; died April 27, 1980.

Charles K. Hofling, M.D., 1221 S. Grand Blvd., St. Louis 63104; a graduate of the University of Cincinnati, 1946; member of St. Louis Metropolitan Medical Society; age 60; died May 17, 1980.

Joseph P. Russell, M.D., 1717 Greenberry Rd., Jefferson City 65101; a graduate of St. Louis University, 1930; member of Cole County Medical Society; age 74; died May 17, 1980.

Theodore A. Coffin, M.D., 6415 Sagamore Rd., Mission Hills, Kan., 66208; a graduate of Case Western Reserve University, 1932; member of Jackson County Medical Society; age 73; died May 18, 1980.

James E. Hill, M.D., 820 Jefferson, Fulton 65251; a graduate of the University of Arkansas, 1953; member of Callaway County Medical Society; age 52; died June 6, 1980.

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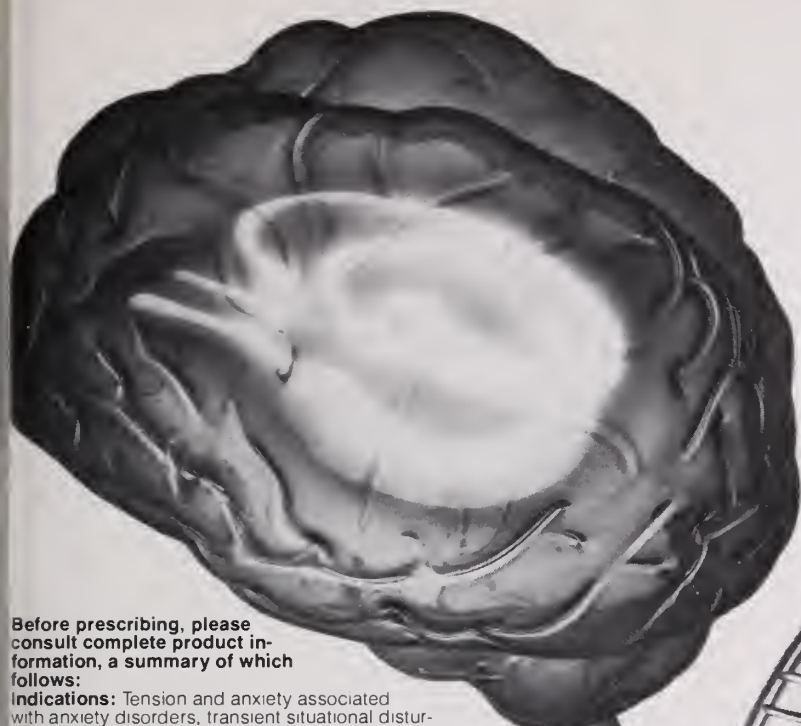
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Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Use in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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Volume 77, No. 8

(ISSN 0026-6620)

August, 1980

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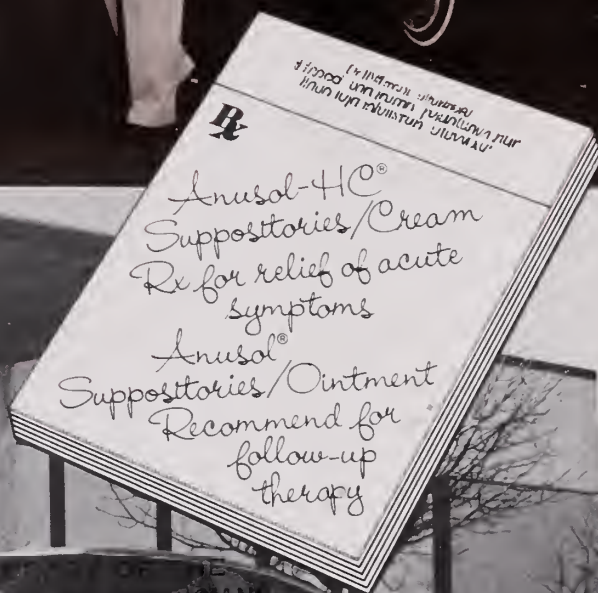
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Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Indications: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas and relief of local pain and discomfort following anorectal surgery. Anusol-HC Cream is also indicated for pruritus ani.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

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Anusol-HC is not for ophthalmic use.

Dosage and Administration: Anusol-HC Suppositories — Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at

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NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

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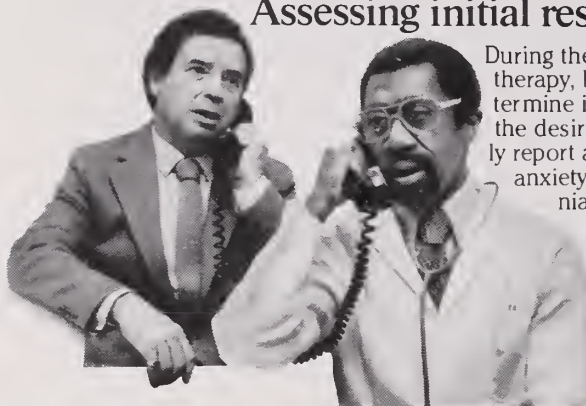
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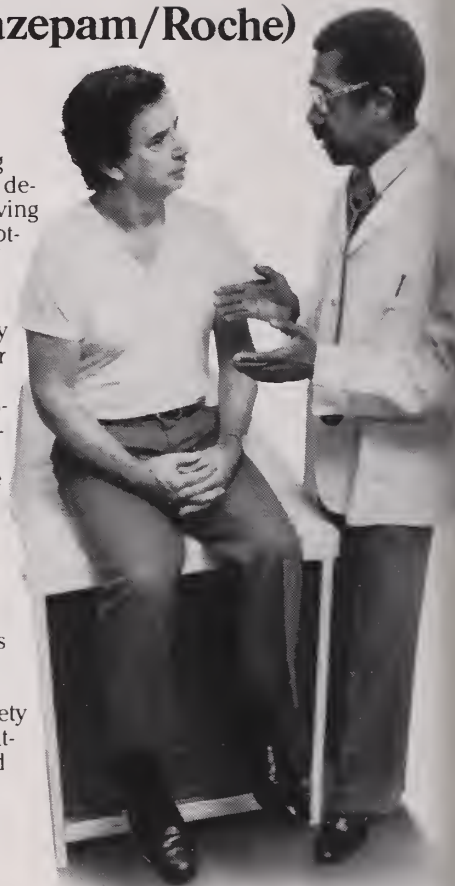
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Monitoring patient response to Valium® (diazepam/Roche)

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Making dosage adjustments

START	ADJUST

With any psychoactive medication it is good medical practice to initiate therapy at base dosage levels and titrate to the patient's needs. With Valium, experience has shown that 5 mg t.i.d. is usually sufficient although some patients with severe or persistent anxiety may require higher dosages initially. In geriatric or debilitated patients, the recommended dosage is 2 to 2½ mg once or twice daily.

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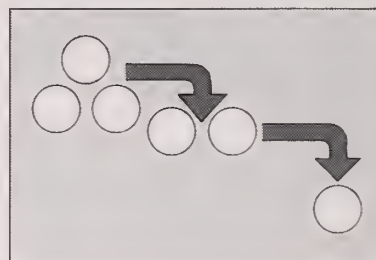
Evaluating progress toward therapeutic goals

SET GOALS						
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

At the beginning of therapy it is now common practice for both physician and patient to establish treatment goals and to estimate the amount of time needed to achieve them. Then the patient knows what to expect and when to expect it.

Some physicians find that compiling a checklist of presenting symptoms and complaints is useful for assessing the patient's response from visit to visit. In this way, progress toward attainment of the therapeutic goal is reviewed at regular intervals. As patients feel their symptoms abate and begin to develop insight into the sources of their anxiety and psychic tension, the checklist can be expected to dwindle.

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Valium® (diazepam/Roche)®

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders, psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, atetosis, stiff-man syndrome, convulsive disorders (not for sole therapy). The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication. Abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d. alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10. Prescription Paks of 50, available in trays of 10.



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The Missouri State Medical Foundation is classified by the Internal Revenue Service under Section 509(a)(3). Individuals may deduct up to 50% of their adjusted gross income for contributions made to the MSMF.

Tenuate®

(diethylpropion hydrochloride NF)

Tenuate Dospan®

(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity or idiosyncrasy to the sympathomimetic amines, glaucoma, agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, hypertensive crises may result.

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: **Cardiovascular:** Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. **Central Nervous System:** Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache, rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. **Gastrointestinal:** Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. **Allergic:** Urticaria, rash, ecchymosis, erythema. **Endocrine:** Impotence, changes in libido, gynecomastia, menstrual upset. **Hematopoietic System:** Bone marrow depression, agranulocytosis, leukopenia. **Miscellaneous:** A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg tablet three times daily, one hour before meals, and in the evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg tablet daily, swallowed whole, in the morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:

MERRELL NATIONAL LABORATORIES

Division of Richardson-Merrell Inc.

Cincinnati, Ohio 45215, U.S.A.

Licensor of Merrell®

References: 1. Citations available on request from Medical Research Department, MERRELL NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M. T., O'Neil, D. L., R. H. and Leyland, H. M. A comprehensive review of diethylpropion hydrochloride. In: Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed. New York: Raven Press, 1978, pp. 391-404.

Merrell

**Overweight may not always be simple...
complications can develop*.**

Complicated or not...

Tenuate[®] Dospan[®] ^{IV} **(diethylpropion hydrochloride NF)** **75 mg. controlled-release tablets**

A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict appetite control and a successful program of weight reduction may tend to diminish the incidence or severity of the complications in some patients. Diethylpropion hydrochloride has been reported useful in such patients and while it is not suggested that Tenuate itself in any way reduces the complications of overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. **Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.**

In uncomplicated overweight.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

**Tenuate—it makes sense.
And it's responsible medicine.**

*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

Merrell



For prescribing information see opposite page.

α

Alpha Stimulation

Central Control of
Blood Pressure*



*The Family of Man by Roberto Moretti,
a statuary in crystal symbolizing the broad range of
hypertensive patients eligible for therapy with Catapres.

The Alpha Advantage:

It's for all kinds of hypertensives

- Unlike beta blockers, Catapres® has no contraindications.
- Catapres can be useful even in these patients with:

Congestive heart failure	Allergic rhinitis
Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
Bronchial asthma	Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.

love—low incidence of impotence and/or loss of libido:
2.8% in 1,923 patients studied.¹

cardiac output—tends to return to control values during long-term therapy.

blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

¹ Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

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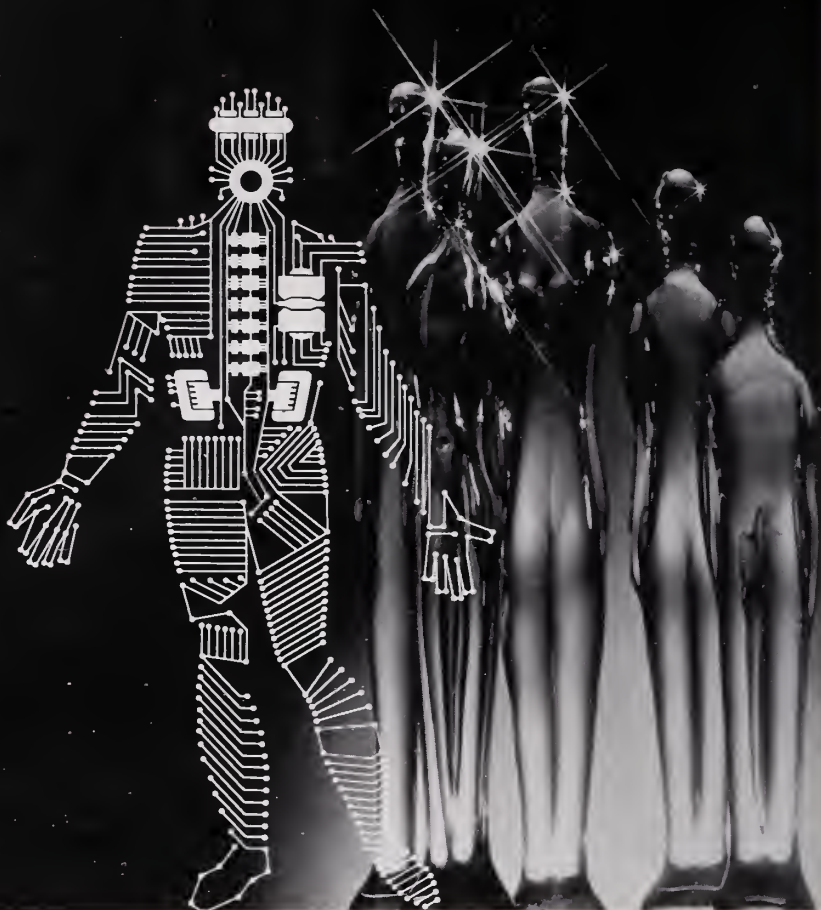
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Hypertension



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The Alpha Advantage: It's for all kinds of hypertensives

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Catapres
(clonidine HCl)
Hypertension



- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an anti-hypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.

Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.

Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

spontaneously occurring retinal degeneration in albino rats treated for 6 months or longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness and sedation. Constipation, dizziness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug, some of them rarely. (In some instances an exact causal relationship has not been established.) These include: Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormalities in liver function tests; one report of possible drug-induced hepatitis without icterus; and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chloral hydrate and papaverine hydrochloride. Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase: congestive heart failure, Raynaud's phenomenon; vivid dreams or nightmares, insomnia, other behavioral changes: nervousness, restlessness, anxiety and mental depression. Also rash, an angioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness, itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecomastia: weakly positive Coombs' test, asymptomatic electrocardiographic abnormalities: manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished or absent reflexes and vomiting followed the accidental ingestion of Catapres (clonidine hydrochloride) by several children from 19 months to 5 years of age. Gastric lavage and administration of an analeptic and vasopressor led to complete recovery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-minute intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) over dosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.
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NEWS ROUND - UP

August, 1980

AMA House acts on MSMA Resolutions

Four resolutions referred to the AMA from the MSMA House of Delegates were considered at the national organization's Annual Meeting July 20-24 in Chicago.

The AMA House adopted Resolution 35, which called on the AMA to express its endorsement of the concept, without financial obligation, for the All American Medical Hall of Fame in St. Louis.

Rather than adopt Missouri's Resolution 34, which called for AMA support of all forms of nursing education, the House adopted an AMA Board of Trustees report which reaffirmed the present AMA policy of supporting all forms of nursing education.

A Substitute Resolution was adopted in lieu of MSMA's Resolution 33, which requested the AMA to use all its influence to have the Department of Health and Human Services restrictions on CT Scanner technology modified.

Substitute Resolution 33 resolved that the AMA and physicians at the state and local levels strongly urge that decisions concerning placement of expensive facilities and equipment be made on the basis of local needs and resources and with the cooperation of local practicing physicians, to the end that CT Scanning equipment will be available.

Resolution 32, in which the MSMA asked the AMA to establish a national clearinghouse to monitor testimony by expert witnesses, was not adopted. The House expressed the feeling that implementation of such a clearinghouse would lead to legal problems such

as allegations of "blacklisting."

Responding to a Missouri resolution introduced at the 1979 Interim Session of the AMA House, the Board of Trustees issued a report on podiatrists' hospital privileges. The MSMA has asked that information be made available to state medical associations for use in assisting local hospital staffs to make informed decisions on podiatrists' applications for hospital privileges.

The AMA Board advised the House not to adopt the Missouri resolution and, rather, reaffirm existing AMA policy which reads:

"...the AMA recognizes the right of qualified limited practitioners, such as podiatrists, to seek opportunities to utilize their knowledge and skills in hospitals and other health care facilities. The evaluation of an applicant's credentials should be carried out under the same procedures used for all applicants for hospital or medical staff privileges. Operating room observation, record review, tissue review and medical care evaluation studies remain the foundation of evaluation for practice privileges providing professional services in hospitals. The evaluation of professional competency and performance should be initiated by the department in which privileges are granted, with recommendations as to the scope of the privileges forwarded to the credentials and other appropriate committees in accordance with the hospital medical staff bylaws."

However, the House refused to accept the Board report and referred the entire matter back to the Board for a report in December.

AMA approves new principles of ethics

Following more than two years of study, discussion and debate, the AMA House of Delegates approved new medical ethical principles at the 1980 Annual Meeting in Chicago in late July.

Preamble: The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals, and to self. The following Principles adopted by the American Medical Association are not laws but standards of conduct which define the essentials of honorable behavior for the physician.

I. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity.

II. A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.

III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.

IV. A physician shall respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences with the constraints of the law.

V. A physician shall continue to study, apply and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.

VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services.

VII. A physician shall recognize a responsibility to participate in activities contributing to an improved community.

MSMA opposes state issued prescription pads

Each year over 634,000 prescriptions for Schedule II controlled substances are written by Missouri physicians. In the last session of the Missouri Legislature, Senate Bill 623 was introduced to help control abuses of these drugs.

The MSMA opposed the passage of the bill for several reasons and, fortunately, the bill did not make it out of committee.

Under the terms of the bill, official prescription pads for Schedule II drugs would be supplied to physicians by the Missouri Bureau of Narcotics and Dangerous Drugs. The blanks would be in serial numbered groups of 100 blanks, each blank in triplicate, and would be issued to the physician at a minimal cost. A physician would not be issued more than one book of 100 at a time and he would be responsible for each pad issued to him.

When writing a prescription for a Schedule II drug, the physician would give the patient two copies of the prescription and retain one for his own records. The patient would then present two copies to the pharmacist who would keep one and send one to the Bureau within

30 days of the dispensing of the prescription. Through a computer network, the Bureau would instantly see if a physician was prescribing large amounts of Schedule II drugs or which patients were receiving large amounts of drugs from various sources, said Bureau Director Ernest Sjoblom.

A major factor in the MSMA opposition to the bill is the fact that physicians will be billed for the cost of the computer network through the charge for prescription pads. The additional paperwork involved would also raise health care costs for the consumer.

However, several states in which a similar law has been passed, such as Illinois, New York and Idaho, have reported a decline in prescription forgeries and over-prescribing of Schedule II drugs.

As a result, Mr. Sjoblom says it is likely that the bill will be re-introduced next year. "We are not interested in supplying the medical team with additional paperwork," said Mr. Sjoblom, "But they must take it upon themselves to curb this problem or unfortunately that is what will happen."

Tips for Prescribing Controlled Drugs

- Keep your prescription pads in a safe place where they can't be stolen easily. Minimize the number of pads in use.
- Write Rx's for Schedule II drugs in ink or indelible pencil or use a typewriter. They must be signed by a physician.
- Write out the actual amount prescribed in addition to giving an arabic number or roman numeral — in order to discourage alterations.
- Avoid writing prescriptions for large quantities of controlled drug products unless you absolutely determine that such quantities are necessary.
- Maintain only a minimum stock of controlled drugs in your medical bag. Take your medical bag with you when you are away from your automobile or lock it in the trunk.
- Be cautious when a patient tells you that another physician had been prescribing a controlled drug product for him. Consult the physician or the hospital records — or examine the patient thoroughly and decide for yourself if a controlled drug product should be prescribed.

AMA President to speak at St. Louis meeting

AMA President Robert B. Hunter, M.D., will be the featured speaker at the St. Louis Metropolitan Medical Society meeting on September 9, 1980. The meeting will take place at 7:00 p.m. in the Auditorium with a reception in Dr. Hunter's honor to follow.

Dr. Hunter will speak on "What If There Were No AMA Tomorrow," representing the medical profession to the government, business and industry, third party payments and others. The need for the local physician to support the AMA through membership will also be discussed. A question and answer session will follow.

Dr. Bradshaw is selected

A seven member panel has been appointed by the Missouri State Board of Health to assist in administering the family physician training program.

At the recent organizational meeting of the panel, William D. Bradshaw, M.D., was elected chairman. Dr. Bradshaw represents the Missouri State Medical Association.

Healing Arts Board reviews malpractice suits

The Missouri State Board of Registration for the Healing Arts was given the authority to review malpractice suits filed against Missouri physicians in legislation passed by the General Assembly in 1976. The Board began receiving reports concerning these suits in June 1979 and has since designated several of them for additional investigation.

The main ground for which the Board can take action against a physician for malpractice is "gross negligence in the practice of his profession." Missouri courts have frequently stated that "gross negligence" is conduct indicating a reckless disregard for the rights of others and is quite distinct in its characteristics from merely negligent conduct. Gross negligence is conduct which indicates an indifference to the consequences of action and constitutes wanton misconduct. However, negligent conduct arising from momentary thoughtlessness, inadvertence or from error in judgment, does not indicate a reckless disregard for the rights of others.

After careful screening of all reports concerning malpractice suits filed against Missouri physicians, the Board, after obtaining proper legal advice, then decides which suits deserve additional investigation and possible prosecution.

Your MSMA-Sponsored Insurance Programs

These Programs are especially designed for MSMA members' protection needs.

• *Personal Disability Income*

Benefits are available up to \$2,166 per month. Life Time Accident/to Age 65 Sickness Coverage — flexible waiting periods available from seven days up to one year — the plan is applicable for the Individual or Incorporated Physician. Coverage for private flying is available.

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• *Accidental Death and Dismemberment*

Up to \$150,000, 24-hour worldwide coverage while at work or play — including permanent total disability benefit. Coverage on spouse and children available — also your employees. No medical history required — low group cost.

• *Hospital Indemnity Plan*

Pays you a Cash Benefit for each day of hospital confinement due to injury or illness. . . . Pays *in addition to* other insurance you may have . . . your choice of amount \$20.00 to \$100.00 Daily Benefit. Family coverage available.

Be sure your Disability Income Insurance Plan is up-to-date and adequate for your needs. Professional service is available on a personal basis from your Administrators.

For full particulars, the Administrators invite you to call or write today.

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as a money-saving policy?

Editor's Corner

All In A Day's Work

Some of our Anglo-Saxon farmers possess incomparable senses of humor. A sense of humor is essential while trying to carve a living out of our Ozarkian rock piles we refer to as scenery.

A case in point is Elie Affton. His one hundred and sixty pounds is sparingly distributed over a six-foot, one-inch frame. So sparingly, in fact, that bones stick out everywhere and give him a cadaverous appearance that belies his amusing side.

Elie was recently reclining on one of my examining tables. He had been prepped and a surgical drape had been laid over half his countenance. I had delivered my standard sermon for him to keep his hands down and to let me scratch anything that needed it.

The local anesthetic was injected and I was about to begin. Elie suddenly rared up and everything was in disarray. With a grin, certainly designed to disturb his wife, Elie pronounced, "Woman, if I don't make it through this, I want our oldest boy to have the dog."

Then he laid back and nobody could have been a nicer patient.

* * *

My Barry County correspondent, Dr. Mary Meredith, sent me a choice bit from the Table Rock Lake area.

She said, of a sudden, two apparently faithful and esteemed husbands disappeared from the Cassville scene, apparently with female help and urging.

Mary said this created quite a furor. She allowed there had been a noticeable improvement in the quality of cooking thereabouts and that so many biscuits hadn't been baked in years.

* * *

And Mary's colleague, Dr. Francis Edwards, reported an amusing, but pitiful, story concerning one of the local high school belles, hardly dry behind the ears.

Seems the girl was in the Monett hospital and was delivered of a male child. After the delivery, Francis stopped by the room to ask her if she wanted the baby circumcised.

"Oh no," she replied brightly, "I'm going to breast feed him."

* * *

My longtime Canadian fishing buddy, Roy Lister, reflected on this business of growing old.

He said everyone expects to hurt and to get stiff, to wear out and to walk slower. That's no shock.

But what really rocks him is that he goes along this way for weeks and months and gets used to it. Then, one bright morning, he bounds out of bed and feels just wonderful. And, for the life of him, *he doesn't know why*.

* * *

Dr. Frank Birsner of Joplin told me of the surgeon who fancied himself a great teacher. He continually preached to his residents to incise "bold and true."

Then he one day began a herniorrhaphy, slashed the skin bold and true, but also into a loop of incarcerated bowel.

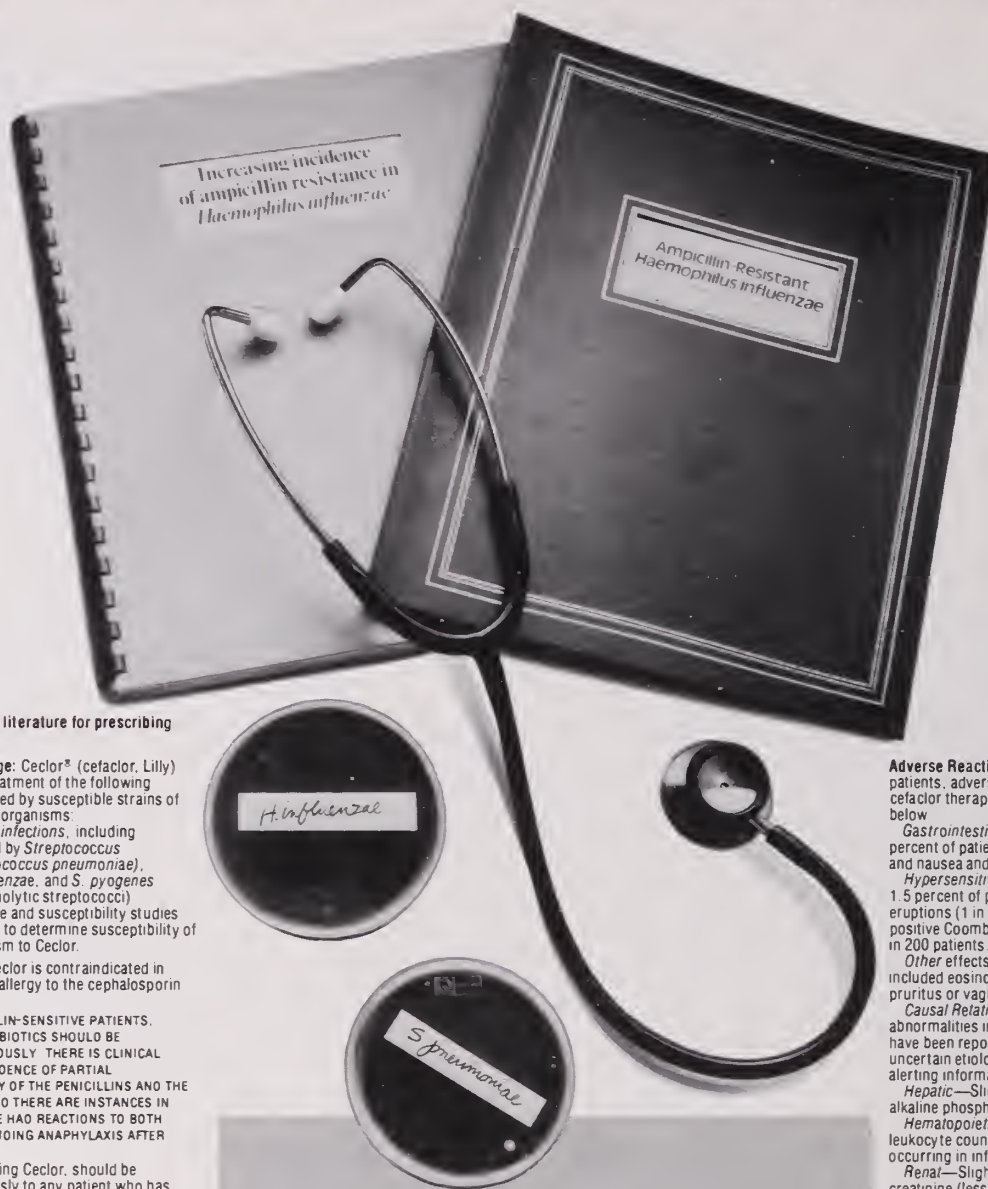
But he was up to it. He announced to his boys, "I don't know how true that was, but it was sure as hell bold."

* * *

And one of my patients says that growing old and forgetful isn't all bad. He claims it makes an honest man of a fellow because it messes up his lying. If he can't remember exactly what he has told everybody, it is more simple to resort to telling the truth.

Walter E. Washburn

An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS. CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.^{1,6}

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.⁷

Ceclor®

cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

Gastrointestinal symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[070379R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285
Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

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Special Review Article

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Giardiasis: Update on Our Most Common Intestinal Parasite

DURING THE LAST DECADE, the protozoan *Giardia lamblia* has been increasingly recognized as an important cause of diarrheal illness in the United States. Waterborne epidemics of giardiasis were reported in Colorado and New York.¹⁻² Localized outbreaks were encountered in day care centers and similar settings.^{3, 4} Cases in travelers to the Soviet Union and other countries were noted with surprising frequency.^{5, 6} Also, severe malabsorption syndromes were described in patients with hypogammaglobulinemia and giardiasis.⁷

Although the incidence of giardiasis in the United States has not yet been established, prevalence data suggest that infection is very common. *Giardia lamblia* is the most commonly identified pathogen in stool samples submitted for parasitological examination. Data from the Center for Disease Control Intestinal Parasite Survey indicate that 4% of more than 300,000 stool samples submitted to state laboratories during 1977 contained this parasite.⁸ This prevalence figure was tenfold higher than that for other protozoal pathogens such as *Entamoeba histolytica*, and twice that for common intestinal helminths such as *Ascaris lumbricoides*.

Giardiasis was detected in virtually every state. In Missouri, 5.3% of stool specimen submitted were positive. The results of this survey were similar to those of earlier community surveys in

the United States that estimated that 7% of our population harbor this protozoan.⁹ Accordingly, this review will consider the etiology, pathogenesis, epidemiology, clinical features, diagnosis, therapy and prevention of gastrointestinal disease associated with this common parasite.

ETIOLOGY

Giardia lamblia is classified with the flagellated protozoans; it exists in both trophozoite and cyst

Giardia lamblia is a flagellated protozoal parasite that causes diarrheal diseases in man. Although it is often associated with tropical countries and travel to exotic places, it is responsible for endemic disease and periodic outbreaks within the United States. During 1977, for example, *Giardia lamblia* was identified in 5% of all stool specimens submitted for parasitological examination in Missouri.

This review focuses on the epidemiology, clinical manifestations, diagnosis and therapy of this common parasitic infection. The authors are from the Division of Infectious Diseases, Department of Medicine and Department of Pathology, University of Missouri-Columbia School of Medicine.

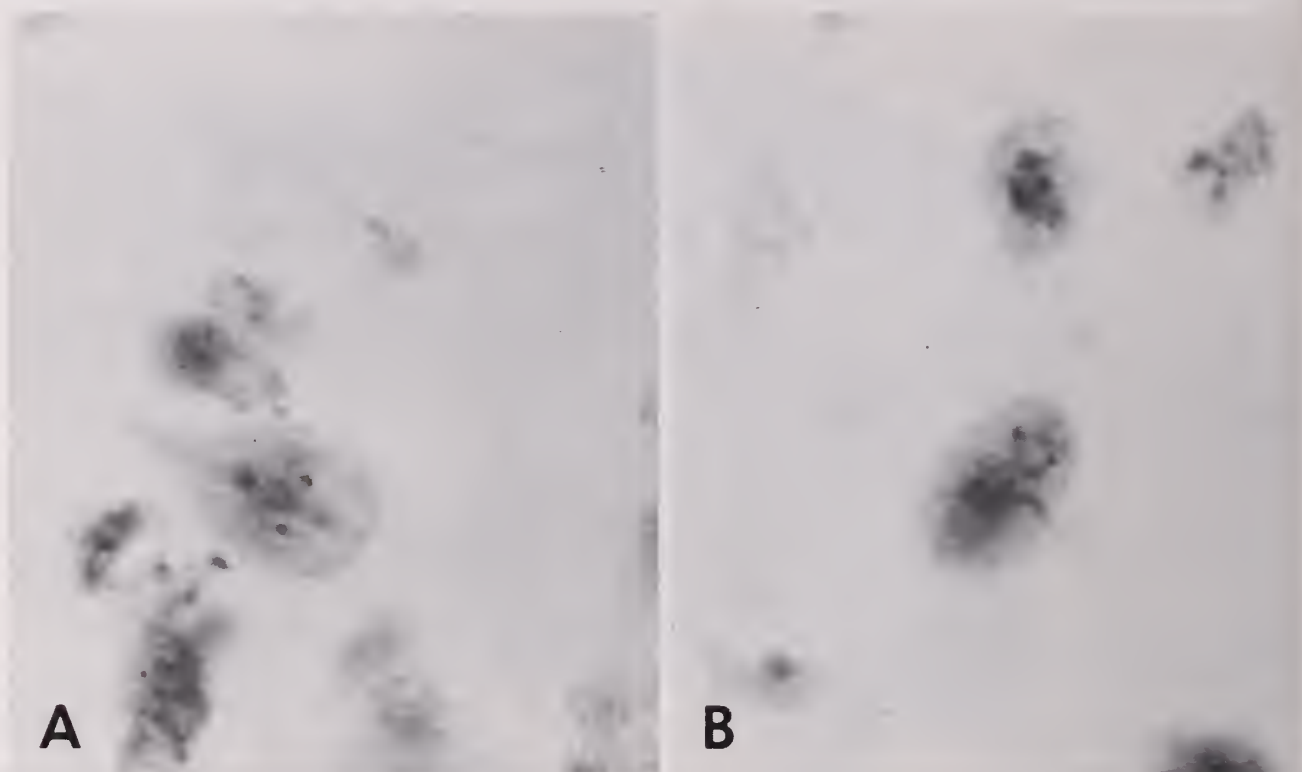


Fig. 1 (A) The trophozoite measures 8 by 16 micrometers with a sharply tapered posterior end. The two nuclei are located on either side of the longitudinal fibrils or axostyle. (B) The mature cyst, 9 by 12 micrometers, has similar nuclei characterized by deeply staining central chromatin and a clear zone extending to the nuclear membrane. Two of the usual four nuclei are clearly visible. The cyst contents often shrink from the clear refractile wall.

forms (Fig. 1). Trophozoites are usually found in the small intestine of man whereas cysts are found in the large intestine and feces. Trophozoites are readily destroyed by acid and other environmental factors; hence, they cannot transmit infection. Cysts that are resistant to acid and remain viable outside the body for weeks at a time under moist conditions are the infectious form. Man is the principal reservoir of cysts that are transmitted by the oral-fecal route. Following ingestion, cysts pass into the duodenum where excystation occurs and trophozoites are released. Trophozoites have a ventral sucking disk that enables them to attach to intestinal epithelium and resist the flow of ordinary peristalsis. For this reason, trophozoites are seldom seen in the stool unless hyperperistalsis and voluminous diarrhea are present. Trophozoites persist in the duodenum and jejunum for weeks to months at a time, but some eventually move on to the colon where encystment occurs. When these cysts are passed in the stool, the life cycle is completed.

PATHOGENESIS

In experimental studies, human volunteers

who swallow capsules containing less than 100 cysts are infected infrequently while those who ingest more than 100 cysts are infected uniformly.¹⁰ These infections, however, are usually asymptomatic. The time from cyst ingestion to cyst passage in such studies varies from six to 15 days with a mean of nine days. Similar incubation periods have been observed in clinical studies.⁶

The presence of trophozoites in the duodenum and jejunum may or may not be associated with symptoms. Factors responsible for the development of symptomatic disease are poorly understood.^{7, 11} For the most part, trophozoites appear to be superficially attached to the intestinal mucosa. Some investigators have suggested that its position forms a mechanical barrier to absorption while others have suggested that trophozoites irritate microvilli or induce enzyme deficiencies along the brush border. Still others have postulated that mucosal invasion is responsible for symptoms, but invasion of the mucosa and submucosa has been demonstrated infrequently. Small bowel biopsies are normal in most patients and small bowel morphology correlates poorly

with severity of symptoms. Only in patients with hypogammaglobulinemia and malabsorption are sprue-like changes with blunting and flattening of villi commonly seen.¹² Malabsorption may arise as a result of these morphological abnormalities, but bacterial overgrowth and bile salt deconjugation also play a role.¹³

EPIDEMIOLOGY

The problem of giardiasis is worldwide in scope. Prevalence figures in the 5% to 10% range have been reported from many countries around the world.^{7, 9} Prevalence is higher where sanitary practices are substandard, and this factor undoubtedly contributes to the high incidence of disease in travelers to Asia, Africa and Latin America.¹⁴ Surprisingly, giardiasis has been recognized most frequently in travelers to Leningrad. During a recent five-year period, it is estimated that 23% of American visitors to that city contracted giardiasis.⁹ Epidemiological considerations suggest that contaminated water was responsible for these cases.⁶

In the United States, giardiasis is not limited to travelers; community outbreaks and endemic disease within communities also occur. The most famous outbreaks are the epidemics in Aspen, Colo. in 1965-1966 involving several hundred cases, and in Rome N. Y. in 1974-1975 involving several thousand cases.^{1, 2} They were attributed to contaminated drinking water; in the Rome outbreak, *Giardia lamblia* cysts were identified in sediment from the city's water supply. Cysts are resistant to concentrations of chlorine used in water purification.

Sporadic cases of giardiasis account for most endemic disease, but a number of cases are concentrated in certain high-risk groups. Patients with hypogammaglobulinemia, especially IgA deficiency, are at high risk.¹⁵ Severe diarrhea and malabsorption syndromes are common in this group. This association suggests that secretory IgA is an important host defense against this parasite.¹⁶ Giardiasis is common in institutionalized patients; outbreaks have been encountered in asylums, orphanages, homes for the retarded and day care centers.^{3, 4, 7} Poor hygiene and direct person-to-person spread are responsible for the high frequency of disease transmission in these settings. Person-to-person spread is probably important in male homosexuals, another group with a high frequency of giardiasis.¹⁷

Giardiasis may occur at any age. In all settings, however, children and young adults are affected

most frequently.⁷ No racial or sexual predispositions have been recognized. Our experience at the University of Missouri conforms to this pattern. During the last five years, 39 cases of giardiasis were seen at the Medical Center in Columbia. There was 27 cases in children and 12 in adults. The sex ratio was equal. Two cases involved institutionalized children and four cases involved international travelers. The remainder were sporadic, but two of these cases were associated with travel to Colorado, a state with high endemicity.¹⁸

CLINICAL FEATURES

The spectrum of clinical manifestations associated with giardiasis include asymptomatic infection, acute diarrheal disease, chronic diarrheal disease and malabsorption syndromes. Asymptomatic infection probably is the most common form of giardiasis. Data obtained during the Rome, N. Y. outbreak indicated that only 10% of the exposed population developed diarrheal disease.² Most symptomatic cases resolved spontaneously during the first week; only 25% experienced diarrhea of more than two-weeks duration. The acute illness with less than a week of symptoms is seldom recognized outside the epidemic situation. The disease is mild, and most patients simply wait it out. For this reason, physicians usually encounter giardiasis in patients with chronic diarrhea or in asymptomatic patients who had stool examinations for some other indication. Two thirds of the 39 patients seen at the University of Missouri between 1974 and 1978 had diarrhea of two or more weeks duration, and the remaining third were asymptomatic. Malabsorption syndromes are encountered infrequently; patients with hypogammaglobulinemia predominate in this category. Malabsorption of fat, vitamin A, glucose, lactose, D-xylose, folic acid and vitamin B-12 have all been reported.^{7, 19}

Diarrhea is the most conspicuous feature of symptomatic giardiasis. In the Rome outbreak, 92% of the symptomatic patients complained of diarrhea.² Diarrhea varies from one or two loose stools per day to ten to 15 voluminous, watery stools per day. Words like pale, greasy and foul smelling are frequently used to describe these stools. Mucous is often present, but rarely pus and blood. Other symptoms include malaise, abdominal cramps, nausea and gas. Cramps were present in 70% of the Rome patients and nausea in 58%. Fever, vomiting and fatigue were distinctly uncommon. In other series, bloating, increased

flatulence and belching of foul gas have been commonly reported.¹⁴ Since these symptoms are uncommon in other diarrheal illness, they have some value in differential diagnosis. Physical findings in giardiasis are seldom noteworthy.

The symptoms associated with the chronic forms of giardiasis are extremely variable. Some patients have persistent symptoms of diarrhea, abdominal cramps and anorexia while others have a course characterized by remissions and relapses of these symptoms. In a few patients, steatorrhea and weight loss dominate the clinical picture. Some of these features are illustrated in the following cases seen at the University of Missouri:

Case #1 In July, 1978, a 40-year-old man was admitted for evaluation of diarrhea of six-weeks duration. He had been having six to seven loose watery stools per day that were associated with abdominal cramping. He denied fever, and he had not observed blood or mucus in his stools. Results of his physical examination was unremarkable, but stool examinations disclosed *Giardia lamblia*. Following a course of metronidazole therapy, his symptoms resolved.

Case #2 In July, 1975, a 22-year-old man was seen for evaluation of diarrhea of two-weeks duration. He had been camping in Colorado and New Mexico several weeks before his diarrhea began and had drunk water from mountain streams. Results of his physical examination were unremarkable, but a stool examination disclosed *Giardia lamblia*. He was treated with quinacrine and presumably recovered without incident.

Case #3 A 20-year-old man was seen here in 1975 after his return from overseas. During a trip to Afghanistan and Pakistan some nine weeks prior to admission, he had diarrhea associated with abdominal pain, anorexia and fatigue. All of these symptoms persisted up until the time of admission. He lost 40 pounds. Results of his physical examination were unremarkable, but a stool examination disclosed *Giardia lamblia*. He was treated with metronidazole and presumably did well.

DIAGNOSIS

The diagnosis of giardiasis is usually made by examination of the stool. In other conditions, parasitologists often emphasize the importance of examining a fresh "warm" stool, but this is not essential when looking for the relatively hardy cysts of *Giardia lamblia*. In the majority of symptomatic patients, the examination of several stool specimens permits an accurate diagnosis. Saline,

iodine and methylene blue wet mounts are all used for this purpose. Because of their characteristic morphology, *Giardia lamblia* are rarely confused with other human parasites (Fig. 1). The diagnosis is fairly easy and "expert" confirmation isn't required. Barium, antibiotics, antacids, anti-diarrheal agents, oily laxatives and certain enema preparations can interfere with stool examination. Consequently, their use should be avoided in patients with suspected giardiasis until the examination for parasites is complete.¹⁴ Some authorities suggest that stool concentration techniques increase diagnostic yield, but there is no consensus on this point. It may be worth a try in difficult cases.^{9, 14} Stool specimens can also be placed in polyvinyl alcohol fixative and sent for permanent staining with trichrome or iron hematoxylin.⁷ This course of action is suitable for practitioners with limited laboratory back-up.

Cyst excretion can be intermittent. Hence, diagnostic accuracy is increased by examinations of multiple specimens. In Dr. Wolfe's experience with 670 cases, the diagnosis was made with the first stool examination in 76% of patients, with two examinations in 90% and with three examinations in 97.2%.¹⁴ Other investigators have reported lower yields with multiple examinations, but all agree that stool examinations fail to yield a diagnosis in certain patients.²⁰ In these patients, diagnosis requires examination of duodenal contents for trophozoites. If duodenal aspirates are obtained, then both wet mounts and fixed, stained specimens should be examined. If small bowel biopsies are obtained, mucus smears, touch preparations and multiple sections of small bowel should be examined. Small bowel biopsies and mucosal imprints offer the highest diagnostic yield, being positive in 100% of cases.²⁰ No serologic tests for giardiasis are generally available, and other laboratory tests are unhelpful. Of note are that giardiasis does not cause leukocytosis or eosinophilia, and fecal leukocytes are not present in stool specimens.

THERAPY

Therapy is recommended for all patients with documented infection regardless of their symptomatic status. In patients with gastrointestinal symptoms, specific therapy is curative. In asymptomatic patients, therapy eradicates the parasite from the individual and reduces cyst transmission in the population. Quinacrine is the drug of choice for giardiasis. Dosages of 100 mg three times a day for five days eradicate the parasite and produce

symptomatic improvement in more than 90% of adult patients.^{7, 9, 14, 21} Quinacrine therapy is safe and effective, but minor complaints of nausea, headaches and malaise are frequently voiced. Approximately 1% of patients treated with this drug also develop a toxic psychosis. Because of these side effects, many physicians prefer to treat giardiasis with metronidazole in a dosage of 250 mg three times a day for ten days. This therapy also produces cure rates in excess of 90%.^{7, 9, 14, 21} Metronidazole, however, is not approved by the Federal Drug Administration for this indication, probably because of its carcinogenicity in mice and its ability to induce mutations in bacteria. Metronidazole therapy does have some adverse effects including nausea, headache, vomiting and disulfiram-like reaction following alcohol ingestion. These are rarely serious. Occasionally, second courses of quinacrine or metronidazole are required to completely eradicate giardiasis.

Two other drugs deserve mention. Furazolidone, an investigational drug available from the Center for Disease Control, comes in an oral suspension which is useful for young children who can't take quinacrine or metronidazole tablets.¹⁴ Tinidazole, an investigational drug related to metronidazole, offers effective single dose therapy. One 2 gm dose eradicates giardiasis in more than 90% of cases.²² Further work is needed to define its toxicity, but at the moment tinidazole appears to offer a distinct therapeutic advantage.

PREVENTION

Since travel to exotic places is an important factor in the acquisition of giardiasis, some advice regarding prevention may be appreciated by those who enjoy international travel. The first principle is to avoid contaminated water. In most countries, the safety of local water supply can be ascertained from knowledgeable residents or embassy staff. If there is any question, then water should be avoided completely or sterilized with heat or iodine.⁷ Carbonated and fermented beverages in sealed containers are safe.

The second principle of prevention is to avoid contaminated food. Contaminated food appears to play a role in transmission. However, such factors as types of food involved, importance of food handlers and importance of cyst transfer from

feces to food by flies are poorly defined. Nevertheless, it makes good sense to avoid raw fruits and vegetables and to eat only cooked food that is still steaming on arrival at the table. *Giardia* cysts are killed immediately at 50 C.⁷

The third principle of prevention is to practice good hygiene, especially hand washing. There is no prophylactic agent for the prevention of giardiasis, but attention to these principles will prevent infection in most circumstances.

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Postexposure Management of Rabies-Prone Wounds

MISSOURI is currently experiencing an epizootic of rabies. As of June 2, 1980, the Missouri Division of Health has confirmed 230 animal heads as positive for rabies. This places Missouri second among the states in number of confirmed cases in animals.¹

With an upswing in rabies in wild animals, "spill over" into domestic animals usually occurs, resulting in potential exposure of many humans. Widespread public concern and, in some cases, alarm, have resulted. The purpose of this paper is to define and briefly summarize the management of the "rabies-prone" wound, particularly in light of the recent licensure of a new, highly potent, human-cell derived vaccine.

BACKGROUND

Rabies virus is labile and is readily destroyed by drying, by exposure to ultraviolet light (sunlight) and by chemicals. For practical purposes, it is found only in the nervous tissue, salivary glands and saliva of infected animals.

The virus is acquired from the saliva of an infected animal by bite or introduction into an open wound. Airborne spread of the virus is extremely rare and has occurred only under dark, humid conditions in a cave or during laboratory accidents. These latter transmissions need not be generally considered.

DECISION TO TREAT

The decision to give postexposure prophylaxis rests on balancing the probability of a significant exposure to saliva from a rabid animal against the risk of side effects.² The risk of exposure to rabies is analyzed in terms of two factors. First, was there a known bite or contamination of an open wound or mucous membrane by the saliva of an animal? If not, there is no cause for further concern (except in some cases of laboratory accident while handling the virus). Second, what is the likelihood of rabies infection in that animal and in the geographic area?

The following animal species have been documented to have rabies in Missouri:³

Wild animals: Skunk, fox, coyote, racoon and bat.

Domestic animals: Dog, cat, cattle, and rarely, horse, and pig.

The following animal species have not been recognized to have rabies: rabbits, squirrels, rats, mice, chipmunks and other rodents.

Any bite by a wild animal in the first group requires rabies prophylaxis. The vaccine series may be stopped if the animal's head is available for examination and is negative.

Management of domestic animal bites (cats and dogs) is based on three principles:

1. Was the attack provoked?
2. At the time of the attack, was the animal behaving normally (not showing altered behavior or signs of incoordination)?
3. Was the animal captured and is it available for examination?

All unprovoked attacks by dogs and cats should be regarded as potentially involving rabies and should be managed as such. If there is any question about whether or not the bite was provoked or the animal was behaving strangely, prophylaxis should be given.

If the animal has been captured, it should be examined by a veterinarian. If the result of the examination is entirely normal, one may elect to keep the animal under observation for ten days and withhold rabies prophylaxis from the patient. If the veterinarian's examination reveals something consistent with rabies, the animal should be killed humanely (without injury to the head) and submitted to the state laboratory for examination. Rabies prophylaxis should be begun immediately. It may be stopped, if the head is shown to be negative.

Wild animals involved in biting incidents should be captured or humanely killed without injury to the head. While wearing rubber gloves, the head should be removed, placed in a plastic bag and shipped in ice to the Missouri Division of Health. The head should not be frozen. Special shipping containers may be obtained from the district health offices or the Division of Health laboratory.

Should an exposure result from a family pet or an animal known in the neighborhood, its vaccination status should be ascertained. In general, animals current on their rabies vaccinations will be resistant to the disease (duration depends on the species and specific vaccine, so ask a veterinarian). Consequently, human prophylaxis is not necessary unless there is a question as to the health of the animal or a definite abnormality is found. No approved or effective vaccine exists for "domesticated" wild animals (skunks, racoons and others).

ADVERSE REACTION TO RABIES TREATMENT

The risk of a major adverse reaction to rabies prophylaxis has diminished with the availability of a human globulin product rather than horse serum and the use of an egg-derived rather than a nerve-tissue derived vaccine. This risk will be further reduced when the recently licensed Merieux vaccine (HCDS) becomes widely available.

Human rabies immune globulin (HRIG) is a safe product.² Minor side effects are common and include pain at the injection site and low grade fever. Side effects reported with other human globulin preparations include anaphylaxis, nephrotic syndrome and angioneurotic edema, but these have not been reported to date with HRIG.

Duck embryo vaccine (DEV) is a killed virus, avian-derived vaccine and is contraindicated in people allergic to eggs. Local reactions at injection sites are the rule and include pain, redness and induration.⁴ One third of individuals may experience systemic symptoms of fever, malaise and myalgias, usually after five to eight doses of vaccine. Swelling and tenderness of regional lymph nodes may occur. Anaphylaxis occurs at a rate of 5/100,000 doses and usually within the first three days. This rate may be slightly increased in people who have received other egg-derived vaccines within the previous three months (measles, mumps, rubella or yellow fever vaccines). Neurologic sequelae from vaccination with DEV have been reported at a rate of 3.1/100,000 of those vaccinated. Some of these "reactions" were probably the actual development of rabies during the immunization schedule.

The reported local side effects of HCDS are similar to those reported with DEV, but they are more evanescent and occur in less than 50% of individuals. There is no cross reactivity with egg-derived vaccine and no appreciable incidence of

neurologic sequelae has been reported.

Potential complications should be explained to patients and when possible, written consent should be obtained before the vaccine is given. Due deliberation in making the decision to treat is important not only from the consequences of the disease and potential complications of treatment, but also because HRIG and rabies vaccine (both DEV and HCDS) are in short supply and are extremely expensive.

MANAGEMENT OF THE WOUND

Local care is extremely important as evidenced by experimental rabies. Therefore, the wound should be thoroughly cleaned with soap and water. Tetanus prophylaxis should be given according to the usual guidelines. Antimicrobial therapy may be given if indicated. Local health authorities should be notified of the bite. Help in capturing the animal may often be obtained from them as well.

IMMUNIZATION

Since rabies virus rapidly binds irreversibly to nerve endings, it is necessary to administer passive immunization with HRIG as soon as possible after the bite, preferably within 48 hours. The dose used is 20 IU/kg body weight. If possible, half of the amount should be infiltrated around the wound and the remainder given in the buttocks. Passive immunization is essential for known exposures. Experience in the Middle East has documented it to be more effective in the short term than vaccine alone.⁵ If HRIG cannot be obtained within 48 hours, anti-rabies serum (equine) may be given (while observing the usual precautions) despite its higher incidence of side effects.

ACTIVE IMMUNIZATION

Duck embryo vaccine has been the only rabies

In view of the current dramatic increase of rabies in wild animals in Missouri and the "spill over" into domestic animals that usually occurs, the author defines the management of "rabies-prone" wounds and directs attention to the recent licensure of a new, highly potent, human-cell derived vaccine.

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vaccine licensed for human use until June, 1980. A highly potent vaccine made in tissue culture (HCDS) has been licensed recently and will greatly simplify post-exposure prophylaxis when it becomes widely available. When available, *HCDS vaccine will be the vaccine of choice for both pre- and postexposure rabies prophylaxis* since it produces antibodies in the vast majority of recipients and is non-reactogenic compared to DEV.

DEV is supplied in lyophilized form in 1 ml vials. Since passive immunization interferes with antibody response to vaccination, 23 doses of DEV must be given to offer the best chance of inducing antibody in the patient.⁶ Either of two schedules may be used:² (1) daily 1 ml doses of vaccine for 21 days followed by 1 ml boosters on days 31 and 42 or (2) vaccine given as two 1 ml injections per day for the first seven days, followed by one injection per day on days 8 through 14, followed by 1 ml boosters on days 24 and 34. The injections are given subcutaneously and sites should be rotated between the thighs, lower back, abdomen and arms. Blood for antibody determination should be obtained at the time of the second booster and two to four weeks later.

HCDS vaccine can be given to all people, including those with allergies to eggs. According to a spokesman for the Center for Disease Control,⁸ the dose schedule recommended is five 1 ml doses given *intramuscularly* on days 0 (day patient is given HRIG), 3, 7, 14, and 28. Blood for antibody titers should be obtained on days 28 and 42, and an additional 1 ml booster dose should be given if a titer of at least 1 : 16 is not attained.

All people who undergo rabies vaccination must attain a documented antibody titer in order to be considered protected. When given with HRIG, the active immunization series using HCDS will induce antibodies in more than 95% of people compared to 80% of DEV recipients. Serum can be sent to the state laboratory for analysis (together with a completed CDC report form). A titer of $\geq 1 : 16$ by the Rapid Fluorescent Focus Inhibition Test (RFFIT) is considered protective. If no titer is obtained, one or two additional booster doses of DEV may be given two weeks apart, followed by repeat antibody testing two to three weeks after each dose. If two additional doses of DEV fail to produce antibody, the HCDS vaccine should be used.

MANAGEMENT OF VACCINE COMPLICATIONS

Local pain and itching at the injection site may be treated with oral antihistamines. Anaphylaxis

(with DEV) should be managed by discontinuing the vaccinations and treatment with epinephrine and antihistamines. Corticosteroids are generally contraindicated because they may interfere with development of antibody and may activate the viral infection.²

If neurologic symptoms (local pain or paresthesia at bite site, mental status changes, severe headache, paresis) occur during or after the vaccination series, the vaccination should be stopped. The patient should be admitted to a hospital that has intensive care facilities and a neurologist. The diagnosis of rabies must be entertained in these instances.

Speed in establishing the diagnosis of rabies encephalitis is important because recent animal work suggests some possible benefit to early therapy with human interferon.⁷

OF SPECIAL INTEREST

Persons allergic to eggs and those who have been bitten by a known rabid animal (head positive by FRA) should receive the Merieux human diploid cell vaccine. Persons who are exposed to a known rabid animal and fail to develop antibody following the recommended series of DEV should also receive this vaccine.

Physicians in need of advice concerning the need for a particular patient to receive postexposure prophylaxis may obtain help by calling any of the following:

The Center for Disease Control, Atlanta, Ga.
(404) 329-3727

Missouri Division of Health: Drs. Denny Donnell and A. P. Liang (314) 751-2713

University of Missouri Medical Center: Bruce H. Hamory, M.D. (314) 882-4901

PREVENTION OF EXPOSURES

Physicians should encourage patients to have their pets vaccinated against rabies. Physicians should alert people to the dangers of wild animals as pets and to the need for avoiding stray animals. Patients with a high likelihood of exposure to rabies (animal handlers, veterinarians, dog catchers, telephone repairmen, foresters) should be considered for pre-exposure prophylaxis.

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Coronary Angiography Reviewed

Part II. Complication Rate and Management of the 'High Risk' Patient

THE INDICATIONS for coronary angiography have previously been reviewed in Part I of this article. Although coronary angiography has become a routine procedure, this invasive investigation still has the potential to cause a life-threatening complication, particularly in patients who are at the highest risk. The focus of this article is to review the recent experience of coronary angiography at the University of Missouri-Columbia as it has been frequently performed in patients with severe cardiac disorders with particular reference to the management of high risk patients.

RISKS OF CORONARY ANGIOGRAPHY

In general terms, the risks of coronary angiography¹ are related to the following:

1. The training and experience of the physician angiographer
2. The extent and severity of cardiac problems in a particular patient
3. The quality of equipment in a particular catheterization laboratory, i.e., is it state of art?

The decision regarding coronary angiography in a particular patient must be influenced by the risk/benefit ratio of the procedure. This includes knowledge of the complication rate for the catheterization laboratory in which the study is to be performed. If the procedure is to be considered routine in the assessment of patients with coronary artery disease, it is then absolutely essential that coronary angiography be performed safely with minimal risks in even the sickest patients. Not only should the major risks (Table 1) from coronary angiography be kept to a minimum, but the study should be of good diagnostic accuracy.²

The Inter-Society Commission for Heart Disease (ICHHD) resources report³ states that "a frequently overlooked or denied complication is the incomplete or nondiagnostic study i.e. the ex-

amination that must be repeated because it yields insufficient or inadequate information. This is double jeopardy for the patient; it is tragic when it occurs and in some laboratories, it represents a high percentage of all studies performed." An inadequate nondiagnostic or incorrectly interpreted study can lead to incorrect or unnecessary treatment or both and, also, the subsequent risks and further expense of repeat cardiac catheterization.

National complication rates for coronary angiography vary greatly in the reported incidence.⁴⁻¹¹ The major complications^{4, 9} are outlined in Table 1. Complications were defined as being related to the coronary angiogram if occurring during or within 24 hours of the study or, at a later period, if clearly related to the procedure.

An analysis has been performed of the complication rate at the University of Missouri-Medical Center for all coronary angiograms performed to the present time from Jan. 1, 1977 (the date when at least one of the authors of this article

TABLE I
COMPLICATIONS OF CORONARY ANGIOGRAPHY

A. MAJOR
1. Death
2. Non-fatal myocardial infarction (M.I.)
3. Cerebrovascular accident (CVA)
4. Cardiac arrest (ventricular fibrillation, ventricular tachycardia needing countershock $\pm$ CPR, prolonged asystole $\pm$ CPR $\pm$ pacemaker)
5. Local arterial problems (thrombosis, pseudoaneurysm, uncontrolled hemorrhage needing transfusion)
B. OTHER
1. Coronary artery dissection/embolism without M.I.
2. Median nerve injury
3. Severe dye reaction
4. Pyrogenic reaction
5. Myocardial perforation (without further complications)

(CPR = Cardiopulmonary Resuscitation)

TABLE 2
INCIDENCE OF ALL COMPLICATIONS AT
UNIVERSITY OF MISSOURI-COLUMBIA (1/77 to 3/79)

	Patients	%
Total Cases	653	-
Death	0	0
M.I.	1	.15
C.V.A.	0	0
Cardiac arrest	3	.46
Arterial	3	.46
Renal failure	1	.15
Myocardial perforation	1	.15
Severe dye reaction	2	.3
Pyrogenic reaction	1	.15
Total	12	1.82

[J. F. S.] began performing coronary angiograms at the University of Missouri-Columbia). During this 26.5-month period, the majority of the studies were performed by two angiographers only (N.P.M. and J.F.S.) since it is the belief of our cardiology group that a limitation on the number of cardiologists performing coronary angiograms in each institution increases the diagnostic accuracy and greatly decreases the risks of coronary angiography.

From Jan. 1, 1977 to March 14, 1979, 653 consecutive coronary angiograms were performed with 12 complications (12/653 = 1.82%) (Table 2). There have been no deaths, no cerebrovascular accidents and one myocardial infarction: this patient suffered a limited dissection (without loss of vessel patency) of the proximal right coronary artery during injection which resulted in severe ischemic pain for a 20-minute period resulting in a limited and subsequently uncomplicated myocardial infarction. Such a complication has been previously reported by others.¹²

Three patients had cardiac arrest: two with ven-

tricular tachycardia during the procedure and the other patient (with triple vessel disease) with ventricular fibrillation three hours after completion of a previously uneventful study. No patients had prolonged asystole and all three patients with cardiac arrest were successfully resuscitated without permanent sequelae. Arterial complications occurred in three patients: two thromboses occurred in the brachial artery (1.3% of the 155 patients studied via brachial arteriotomy) and one thrombosis occurred in the femoral artery (.2% of the 498 patients studied by the femoral percutaneous technique).

As outlined in Table 2, five other complications occurred. Overall, *no permanent problems developed* in these 12 patients as a result of their complications.

The recommendation of the Inter-Society Commission for Heart Disease³ is that laboratories should not have a death rate greater than 0.3%. Our experience clearly falls within this.

Table 3 compares the rate of *major* complications in our patient group with other reported series.^{3, 5, 7-10} Our complication rates appear to compare favorably with those reported by other groups. Although since the earliest of these series were reported, advances in technique have occurred over the past few years, more critically sick patients are presently undergoing coronary angiography in most major medical centers than previously. Complication rates are markedly influenced by the extent of left ventricular dysfunction and the severity of coronary artery disease, particularly in patients with left main stem coronary artery narrowing.

Analysis of our data indicates that the majority of the patients referred to our institution for coronary angiography have severe cardiac disease. Of the 653 patients (Table 4), only 162

TABLE 3
INCIDENCE (IN %) OF MAJOR COMPLICATIONS
IN REPORTED SERIES

	U.M.C.	Adams	Bourassa	Pridie	Green	Ross	Gensini
No. cases	653	46,904	5250	1494	445	3312	2000
Death %	0	.45	.23	.48	0	.09	.05
M.I.	.15	.61	.09	0	.5	.09	.05
C.V.A.	0	.46	.13	.82	0	.03	0
C. arrest	.46	1.28	.80	.2	0.5	.82	.85
Arterial	.46	1.44	.85	.41	1.6	.45	.1
Total	1.07	4.24	2.1	1.91	2.6	1.48	1.05

U.M.C. = University of Missouri-Columbia Series.

TABLE 4
INCIDENCE AND SUBSETS OF CORONARY
ARTERY DISEASE (653) PATIENTS)

	Number	%
Normal coronary arteries*	162	24.8
Single vessel disease	62	9.5
Double vessel disease	73	11.2
Triple vessel disease (excluding left main)	281	43.0
Left main stenosis	75	11.5
Total	653	100.0

(Single, double or triple vessel disease = obstruction >50% in one or more of the left anterior descending, circumflex and right coronary artery systems.)

* Mostly in patients with congenital or valvular heart disease.

(24.8%) had normal or minimal disease of their coronary arteries; many of these patients had coronary angiography performed on a routine basis in conjunction with cardiac catheterization for valvular heart disease. In the remaining 491 patients with coronary artery disease, triple vessel disease (excluding left main stenosis) occurred in 43.0% and left main stenosis in an additional 11.5% of the total group. Thus, in our group of 491 patients who had coronary artery stenoses, 72.5% of this group had triple vessel disease with or without left main involvement, indicating a high incidence of severe coronary artery disease.

The complication rate from coronary angiography is known to be higher in left main coronary artery stenosis with a reported incidence of death varying from 0%¹³ to 16%.^{5, 14-18} In the 75 patients in our series with left main disease, there were *no deaths and no other complications*.

MANAGEMENT OF "HIGH RISK PATIENTS" UNDERGOING CORONARY ANGIOGRAPHY (TABLE 5)

Institutions vary in their management programs and there is no "ideal" single approach. The approaches described here are those currently in effect at the University of Missouri-Columbia. It is important that a complete and accurate pre-catheterization assessment is made of all patients considered as candidates for cardiac catheterization.

We recommend a number of specialized approaches to minimize the incidence of complications in these patients as follows:

1. *Left Main Coronary Artery Disease*. A high index of suspicion is provided prior to coronary angiography by the presence of unstable or severe angina and a strongly positive exercise test.⁶ The least amount of dye required to obtain a high quality left ventriculogram is used and the least

TABLE 5
"HIGH-RISK" PATIENTS UNDERGOING
CORONARY ANGIOGRAPHY

1. Left Main Coronary Artery Disease
2. Unstable Angina
3. Pre-existing Renal Failure (especially Diabetes)
4. History of Severe Dye Allergies
5. Recurrent Ventricular Arrhythmias
6. Anticoagulation in Valvular Heart Disease
7. Peripheral Vascular Disease

number of coronary arterial injections are performed. Frequently, by using the cranial-caudal angulation (described in Part I of the review), only one injection into the left coronary artery system is sufficient for diagnostic and decision making purposes. All patients with left main stenosis are closely monitored in the coronary care unit for at least 24 hours following catheterization even if the procedure has been tolerated extremely well.

2. *Unstable Angina*. Prior to coronary angiography, the patient is stabilized and made pain free by using sedation, B-blockade, oxygen, nitrates and, possibly, heparin. If the patient cannot be made pain free on this program, an intra-aortic balloon is inserted (to provide hemodynamic support and resultant decreased cardiac work load) and coronary angiography is performed with the simultaneous use of this cardiac assist device.^{19, 20} In our experience, this is rarely needed, but excellent results have been obtained with this approach. They include no myocardial infarctions and no other complications attending its use. Clearly, arrangements are made to perform im-

This is the second segment of a two-part review of coronary angiography that reflects the major advances in the practice of cardiology and cardiovascular surgery at the University of Missouri-Columbia Medical Center.

The indications for coronary angiography and recent technical advances that have resulted in improved diagnostic accuracy were discussed in Part I.

Part II is a review of the recent experience with coronary angiography frequently performed in patients with severe cardiac disorders at the Medical Center. Particular reference is made to the management of the high-risk patient.

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mediate surgery if an operable situation is revealed.

3. *Pre-existing Renal Failure.* A very high risk (up to 92%) of developing acute exacerbation of pre-existing renal failure (particularly in insulin-dependent diabetics) following cardiac catheterization with angiography has been reported. It appears that patients who receive more than 65 cc per sq m of iodinated contrast are at the highest risk of developing acute renal failure.²¹ Even though this particular group of patients is exposed to a high risk from cardiac catheterization, we still accept such patients for coronary angiography if their symptoms indicate the need for investigation.

Our approach is to fully hydrate the patient before angiography, use the least amount of dye possible for both the left ventriculogram and the coronary arteries, and give the patient (if this will be tolerated) intravenous (IV) mannitol immediately prior to the procedure or intravenous furosemide (Lasix) at the termination of the procedure or both. The patient's fluid input and output are carefully followed after cardiac catheterization and serial daily measurements of the renal function are obtained. Despite this very careful approach, one patient in our series unfortunately developed severe renal failure as previously described, but renal function later returned to the pre-catheterization level.

4. *History of Severe Dye Allergies.* Coronary angiography can be performed in patients with previous allergic reactions to iodinated dye. Our protocol is to treat the patient with 48 hours of depot steroids followed by IV solu-medrol (eight hours) and further IV solu-medrol together with intravenous diphenhydramine hydrochloride (BenadrylTM) immediately prior to the procedure. We have had no reaction following this program in patients who previously gave an excellent history for dye allergies.

5. *Recurrent Ventricular Arrhythmias.* Patients with recurrent ventricular arrhythmias are at higher risk during coronary angiography. However, with the use of appropriate antiarrhythmic medications (particularly IV lidocaine), angiography can be performed. Any patients with a history of significant bradycardia or significant conduction abnormalities on their electrocardiograms have temporary pacemakers placed before the coronary injections.

6. *Anticoagulation in Valvular Disease* (including prosthetic heart valves). Full anticoagulation with heparin is used in all patients undergoing

coronary angiography via both the brachial and femoral artery approaches.²²⁻²⁴ In patients who require maintenance of anti-coagulation therapy (e.g. prosthetic valves, previous cerebrovascular accident, etc.), heparin is administered a few days earlier and warfarin sodium (CoumadinTM) is discontinued. Thus, coronary angiography can be performed without risk of uncontrolled hemorrhage and, at the same time, the patient is spared the risk of thrombus formation such as in the left atrium or on a prosthetic valve. We have had no complications using this approach.

7. *Peripheral Vascular Disease.* The majority of our patients (76.3%) underwent coronary angiography using the percutaneous needle technique via the femoral artery. Since the risk of femoral thrombosis is clearly increased in the presence of peripheral vascular disease in the abdomen or legs,⁹ we do not use the femoral percutaneous approach in patients with any evidence of such disease. Patients are fully examined prior to coronary angiography for such evidence, including any decrease in the leg and foot pulses and any bruits in the abdominal or femoral areas.

When there is evidence of peripheral vascular disease, the right brachial approach with open arteriotomy is utilized. With the use of heparin in all patients during the study together with careful selection of the optimal approach (i.e. via the brachial or femoral routes) for a particular patient, we have had only one episode of femoral artery thrombosis among 496 cases (0.2%). This was in a patient with severe insulin-dependent diabetes in whom the thrombosis occurred approximately 30 hours after cardiac catheterization. This incidence of arterial thrombosis is low compared to other reports.^{4, 5, 7-10}

SUMMARY

There is a high incidence of severe coronary artery disease in patients referred to our institution for coronary angiography. Since the complication rate from coronary angiography is related to the severity of coronary artery disease, a formalized approach is utilized for management of these patients.

The current complication rate of coronary angiography at the University of Missouri-Columbia is comparable to those reported from other major medical institutions in North America. In our series, no patients have died, no patients have had a cerebrovascular accident and only one patient had a myocardial infarction with no long-term effects.

The indications for coronary angiography are continually expanding. This procedure can be performed at such a comparatively low level of risk that it will become more of a routine procedure in institutions with an active cardiac surgical group and with a cardiac catheterization laboratory that is properly equipped and staffed. In such a setting, we believe that even properly selected high risk patients may undergo coronary angiography with a low complication rate and high potential of benefit.

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Management of Rabies-Prone Wounds

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"When national debts have once been accumulated to a certain degree, there is scarce, I believe, a single instance of their having been fairly and completely paid. The liberation of the public revenue, if it has ever been brought about at all, has always been brought about by a bankruptcy, sometimes by an avowed one, but always by a real one, though frequently by pretended payment." — ADAM SMITH

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President's Message

Is Cost Containment in Medicine Cost Effective?

As medical students, we were constantly groomed to be accurate, to be efficient and to conserve resources for the patient, for the hospital and for the community. Peer review and voluntary efforts toward maximum efficiency in use of resources were, have been and will continue to be the integral concepts in the selection, training and clinical activities of physicians. The medical community, however, continues to tolerate the abuses of some of the vocal forces who basically hope to improve their status by continued attacks upon the medical community. Who are these forces? In general, they are made up of the officials of the present labor unions, the membership of the Department of Health and Human Services, the membership of the Public Health Services, a new group called the Computer Third Party Interface Majority and, last but not least, the greater majority of our Federal Congress and some of our state legislators.

Their reasons culminate in the ultimate desire to be in direct control of something for which they are not well-trained. This something is the delivery of health and sickness care to the citizens of Missouri and the United States. These forces hope to do this for either prestige, increased votes or economic gain without the liability for acts conducted in the delivery of health and sickness care.

These very vocal forces hope to ascribe the costs of inflation, the costs of regulation, the costs of bureaucracy and the costs of attempts at a dependent patient population through propaganda to the medical community. The same vocal forces are not as demonstrative concerning the costs of new technology and costs of increased patient utilization, both of which are realistic cost increase factors in today's medicine.

The Missouri State Medical Association and the Missouri Hospital Association have felt for some time that the medical community is better at cost effectiveness than the vocal groups previously mentioned. To this end, they organized, for medicine, a MISSOURI STATE COST EFFECTIVENESS COMMITTEE in early 1978. This committee works back to the grass roots and outward to the national voluntary effort sponsored by the American Medical Association, the American Hospital Association and the Federation of American Hospitals.

The Missouri State Cost Effectiveness Committee began with three goals in mind: (1) To decrease the acceleration of hospital costs to a level below the all-items consumer price index. This was achieved in both 1978 and 1979. Its prospects look good for 1980; (2) To generate the help of the doctors and patients of Missouri to the increased cost efficiency of medical care through whatever means would work; (3) To continue to look for new factors where prompt attention would improve overall efficiency of the delivery of health and sickness care to the citizens of Missouri.

It is this writer's firm belief that the physicians of Missouri, in their daily clinical practice, are delivering cost effective medical care but that they are too "gentle personally" to be vocal about it. It is this writer's belief that the physicians of Missouri should enlist the assistance of their patients in achieving the following two specific goals.

1. To work toward increased efficiency of medical care delivery by such means as (a) preadmission examinations and studies; (b) outpatient care when thought to be safe for the patient; (c) looking for increased patient responsibility for minor medical costs to preserve the coverage for major medical problems; and (d) appropriate use of sick and convalescent leave to conserve such allotments for true necessity.

2. The physicians of Missouri and their patients should become as or more vocal than those vocal forces previously mentioned by saying, "We have done the job better than you could, we will continue to do the job better than you can and we will do so as a part of our voluntary effort in Missouri to protect the efficient costs of medical care against the dangers of cost containment without regard to medical value."



Richard V. Bradley, M.D.

*"Without your help
 . . . I simply
 would not have made it
 through medical school"*

(The following letter was received from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.

"I sincerely appreciate the efforts which you and others put into the Missouri State Medical Foundation and all other student loan funds. You should feel a quiet heroism for the assistance you lend to needy students . . . without your help, I simply would not have made it through medical school."

The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

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MSMA Auxiliary

AMA Auxiliary Convention

A highlight of the summer was the AMA Auxiliary Convention at the Drake Hotel in Chicago on July 20-23. The convention was a time of reunion with auxiliary leaders from other states who shared ideas and projects, conducted the business of the organization and gained a lot of helpful information.

A new feature of the national auxiliary convention this year was the introduction of reference committees and hearings. Patterned after the AMA procedure introduced in 1911, it is hoped that this will help the work of the House by moving issues, particularly controversial issues, in a more orderly fashion while giving all delegates the opportunity to make their views known. Resolutions considered this first year involved membership classifications, deadlines for membership to count in delegate allocation, reduced AMAA dues for widows/spouses of retired members, continuation of the Shape-Up-for-Life campaign through 1981-1982 to stress mental health and fitness, health education in the schools, the upcoming International Year of Disabled Persons in 1981, and the provision for certification of anatomical gift on operator's or chauffeur's licenses.



Mrs. Donald A. Fakhoury
President

On the Saturday preceding the convention, there were workshops on membership, AMA-ERF, health projects and legislation. Three following educational sessions also were held:

Food and Nutrition — Concern, Complexities, Connections
Physical Fitness: An Idea Whose Time Has Come
Facing Death: A Child's Point of View

Key speakers were Letitia Baldrige, president of Letitia Baldrige Enterprises, Inc., New York and Jessica Savitch, NBC News Commentator.

The Missouri delegation was especially pleased to share in the opening session of the AMA House of Delegates and to see Auxiliary President Mrs. Ben Johnson, Jr. present the auxiliary's AMA-ERF contribution check to our own Dr. Hubert A. Ritter, president of the AMA's Education and Research Foundation.

The two-minute report from each state auxiliary offered many good ideas which we might adopt. AMA-ERF and Membership Awards were presented. Unfortunately, the MSMA Auxiliary or our county auxiliaries have a good way to go before getting into the running for those awards. The convention wound up with the reception honoring Mrs. John F. Vaughan and Robert B. Hunter, M.D., the newly installed presidents of the AMAA and the AMA.

Health Care on the Amazon

By

JANICE K. WOERTH, M.P.H., *Kansas City*

SANTAREM, BRAZIL is located approximately 500 miles from the mouth of the Amazon where the blue Tapajos and brown Amazon Rivers join, an impressive sight from the air. It can be reached by commercial air flights that navigate over the river. This is done to insure accessibility to the plane in the event it should go down. A plane down in the dense Amazon jungle would be impossible to both see and reach. For those whose home is in a remote village or island, travel to Santarem is achieved by small boats on the rivers.

Santarem is a simple town with a few small shops, several hotels, a church, a theater and an open-air market set-up on the shores of the river convenient to those traveling by boat. Its population is approximately 300,000.

Santarem's most recent step toward modernization was the introduction of television. While television sets were affordable only to a few, they were enjoyed by many. A common sight was the home of a television owner filled to overflowing and with additional onlookers peering through the door and windows to watch the television show. But a more unique aspect of Santarem

is the health care organization, *Projecto Esperanca*.

Projecto Esperanca (translation is *Project Hope*) was developed by Father Luke Tupper, an American priest and medical doctor. When Father Tupper first visited the central Amazon region in 1968, the infant mortality rate was 50%. Whooping cough, small pox, leprosy and tuberculosis were prevalent among the general population. Father Tupper's first effort to help the people was through an immunization program.¹ A unique health care delivery system that includes a fully equipped hospital ship, nutrition center and family practice clinic has since been developed.

The *Esperanca* ship is a converted ferry boat that was selected because its shallow draft made travel in the waters of river tributaries possible (Fig. 1). This medical ship travels on the rivers as far as 250 miles east and west and 50 miles north and south.²

The *Esperanca* functions as a ambulatory primary care center and provides services in health education, nutritional evaluation, immunizations, medical consultations, laboratory examinations, dental examinations and emergency service³ (Fig. 2).

Four times annually, the *Esperanca* is docked in Santarem and converted to an eight- to ten-bed hospital that includes operating room, recovery room and laboratory. At these times it is staffed by a volunteer surgical team from the United States. The surgical team performs elective surgery in pediatric, orthopedic, ophthalmic, plastic and ear, nose and throat, sub-specialties. During their three- to four-week stay, these volunteer medical teams are able to provide training to local surgeons and medical students that enables them to enhance and expand their skills. More than 300 operations have been performed since the 1974 beginning of *Esperanca*.⁴

The *Esperanca* nutrition center, the first nutritional rehabilitation and research center in the Amazon region, was developed to provide education which would prevent malnutrition and disease transmission. A resident program is available to the severely malnourished children who stay

The author describes her recent visit to the Brazilian state of Para to study various forms of health care delivery there. The most unique system she observed is a ferry boat converted and equipped as a full service hospital by *Projecto Esperanca* to travel the Amazon and its many tributaries to provide health care to inhabitants of remote villages in this central Amazon region.

An assistant professor of dentistry at the University of Missouri-Kansas City School of Dentistry, Ms. Woerth is a member of the board of directors of Missouri/Para Partners, the Missouri chapter of federally supported Partners of the Americas. The goal of the organization is to promote friendly relations between the citizens of the United States and Latin America through exchange of medical, cultural, sports and technical information.



Fig. 1 The Esperanca hospital ship during the process of its renovation and conversion.



Fig. 2 The author (*extreme right*) with members of the medical, nursing and administrative staff of Projecto Esperanca in Santarem, Brazil.

along with their mothers until the child's health is restored. During convalescence, the mothers are educated in basic hygiene, nutrition, child care, sanitation and vegetable gardening. There is also a twice-weekly outpatient program during which dried milk products and nutritional information are provided for families with minor malnutritional problems.⁵

The Esperanca's family practice clinic provides health care services for 50 to 70 patients daily. In addition, the clinic provides inservice training for medical students and postgraduate residents as well as training for "barefoot doctors" who will return to their villages "able to diagnose and treat malnutrition, intestinal parasite anemia, infantile dehydration, pneumonia and urinary tract infection."⁶ This concept of "barefoot doctor" exemplifies Projecto Esperanca's philosophy of developing health care accessibility at the village level. These auxiliaries have been instrumental in the development of "self-help projects within the village, especially in improved sanitation,

hygiene and clean water."⁷

The author visited several remote villages to observe small health centers constructed by local citizens. These centers were to be staffed by the Esperanca-trained auxiliaries and would be visited regularly by a physician or student team from Projecto Esperanca for assistance on difficult medical cases requiring knowledge beyond that of the auxiliary.⁸

The author views this experience as one beneficial to herself and to the local population.

Acknowledgements: To Dr. Harry Owens for granting a personal interview and to Mr. Myron Brody for use of his pictures.

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2. Interview with Dr. Harry Owens. Projecto Esperanca, Santarem, Para, Brazil, Aug. 12, 1979.
3. "Projecto Esperanca Program Summary." Santarem, Para, Brazil, 1979 (Mimeographed).
4. Ibid.
5. Ibid.
6. Ibid.
7. Ibid.
8. Ibid.

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Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

- Oct. 30-
Nov. 1 Annual Fall Clinical Conference —
K.C. Southwest Clinical Society
(Alameda Plaza Hotel)
- Dec. 4-6 The Heart 1980
(Alameda Plaza Hotel)
- (1981)
- Jan. 25-30 Traveling Medical Education Course
— K.C. Southwest Clinical Society
(Steamboat Springs, Colo.)
- Jan. 31-
Feb. 7 Medical Seminar at Sea — K.C. South-
west Clinical Society
(Caribbean Cruise Leaving Miami)
- Feb. 13-14 The Long Weekend: Oncology, Im-
munology and Infectious Diseases
(Crown Center Hotel)
- Feb. 22-
Mar. 1 Traveling Medical Education Course
— K.C. Southwest Clinical Society
(Nassau, The Bahamas)
- Mar. 26-28 Perspectives in Medicine — 1981
(Hyatt Regency Hotel)

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000

- Every Wed.
& Fri. 3:00 PM — Basic Sciences to Surgery
Seminar
4:00 PM — Surgical Rounds

Contact: Erich W. Pollak, M.D., Director of Surgical
Education

- First & Third
Saturdays 9:00 AM — Surgical Techniques Semi-
nar
9:45 AM — Morbidity and Mortality
Conference
10:30 AM — Surgical Grand Rounds
- Every Tues. 9:00 AM — Medicine Staff Conference
(Except second Tuesday of each
month)

Contact: David S. Sneed, M.D., Director of Medical
Education

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
Contact: Office of CME

- Sept. 27 Hand Injuries
- Oct. 9-11 Update in Hematology/Oncology
- Nov. 5 Trauma Management
(St. Louis Metropolitan Medical Society)
- Nov. 6-8 Clinical Allergy for the Practicing
Physician
- Nov. 14-16 Anesthesia and the Geriatric Patient
- Dec. 4-5 St. Luke's Clinical Conference
(St. Luke's Hospital)
- (1981)
- Jan. 4-9 Dx & Rx of Skeletal Disorders
(Keystone, Colo.)
- Feb. 26-27 Clinical Topics in Pulmonary Medi-
cine
- Mar 2-
May 18 Internal Medicine Review
(Monday Evenings — Jewish Hospital)
- Mar. 12-13 Gland Rounds (What's New in Endo-
crinology)
- Mar. 19-20 Rheumatology for the Practicing
Physician
- Mar. 27-28 Vascular Diseases

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

- Aug. 6 Rheumatic Heart Disease

Kilo Diabetes and Vascular Research Foundation
777 S. New Ballas Rd., Suite 308 E. St. Louis 63141
(314) 567-5522

Contact: Sharon Hoette, Program Coordinator

- Nov. 7 Eighth Annual Diabetes Symposium
(Breckenridge Inn Frontenac)

Missouri Baptist Eye Foundation
621 S. New Ballas Rd., Suite 343
St. Louis 63141
Contact: Richard B. Oglesby, M.D.

- Oct. 5 Seminar — Neuro-ophthalmology for
Clinical Ophthalmologists

University of Missouri School of Medicine
Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
Contact: William D. Bradshaw, M.D.

- Sept. 6-7 The Emergency Patient
(Branson)
- Sept. 12-13 Hypertension Conference
(Tan-Tar-A, Osage Beach)
- Sept. 19-20 Annual Plastic Surgery Symposium for
the Primary Physician
- Sept. 26-27 Annual Meeting of the Missouri Peri-
natal Association
- Oct. 3-4 Second Annual Clinical Neurology
Conference
- Oct. 16-18 Second Annual Autumn Rheumatolo-
gy Symposium
- Oct. 29-31 Medical Ethics Symposium
- Nov. 8-9 21st Annual M.D. Day
- Nov. 13-14 The Physician and the Infection Con-
trol Committee

Greater Kansas City Radiological Society
KU Medical Center
Rainbow Blvd. at 39th, Kansas City, KS 66103
Contact: Norman L. Martin, M.D., President

- Oct. 8 GU Radiology
(Dinner meeting, Alameda Plaza)
4 PM — Lecture
(St. Luke's Hospital)
- Nov. 7 Chest Radiology
(Dinner Meeting, Alameda Plaza)
4 PM — Lecture
(Kansas University Medical Center)
- (1981)
- Jan. 22 Neuroradiology
(Dinner Meeting, Alameda Plaza)
5 PM — Lecture
(St. Luke's Hospital)
- Feb. 11 GI Radiology
(Dinner Meeting, Alameda Plaza)
4 PM — Lecture
(Kansas University Medical Center)
- Mar. 11 Nuclear Medicine
(Dinner Meeting, Alameda Plaza)
4 PM — Lecture
(St. Luke's Hospital)
- April 8 Bone and Joint
(Dinner Meeting, Alameda Plaza)
4 PM — Lecture
(Kansas University Medical Center)
- May 20 Pediatric Urology
(With Greater K.C. Urological Society, Granada
Royale Hotel)

The Edward Mallinckrodt Institute of Radiology —
Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
Contact: Ronald G. Evens, M.D., Director

- Sept. 8 Ninth Annual Wendell G. Scott Lec-
ture
- Oct. 13 City-Wide Radiology Conference —
Bone Radiology
- Nov. 10 City-Wide Radiology Conference —
Detection of Abdominal Inflammatory
Diseases

Dec. 15

City-Wide Radiology Conference —
Cardiovascular Computed Tomogra-
phy

(1981)

Jan. 19

City-Wide Radiology Conference —
Ultrasound in Obstetrics

Feb. 9

City-Wide Radiology Conference

Mar. 9

City-Wide Radiology Conference —
Interventional Radiology

June 13

Leroy Sante Lecture

May 11

City-Wide Radiology Conference —
Digital Imaging and Computers
Radiology

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& Fri.

3:00 PM — Basic Sciences to Surgery
Seminar

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Conference

10:30 AM — Surgical Grand Rounds

Every Tues.

9:00 AM — Medicine Staff Conference
(Except second Tuesday of each
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Contact: David S. Sneid, M.D., Director of Medical
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Continuing Medical Education

Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873

Contact: Office of CME

Sept. 27

Hand Injuries

Oct. 9-11

Update in Hematology/Oncology

Nov. 5

Trauma Management
(St. Louis Metropolitan Medical Society)

Nov. 6-8

Clinical Allergy for the Practicing
Physician

Nov. 14-16

Anesthesia and the Geriatric Patient

Dec. 4-5

St. Luke's Clinical Conference
(St. Luke's Hospital)

(1981)

Jan. 4-9

Dx & Rx of Skeletal Disorders
(Keystone, Colo.)

Feb. 26-27

Clinical Topics in Pulmonary Medi-
cine

Mar 2-

May 18

Internal Medicine Review
(Monday Evenings — Jewish Hospital)

Mar. 12-13

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MSMA Members Receive Physician's Recognition Award

Fifty-two MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period April 11-May 14, 1980.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in *Missouri Medicine* as they are received from the AMA.

James J. Allain, N. Kansas City
 Pat A. Barelli, Kansas City
 John D. Bauer, St. Louis
 Jon E. Browne, Kansas City
 James T. Chamness, Chesterfield
 Robert A. Chandler, Kansas City
 Tai-Yong Chung, Poplar Bluff
 Robert J. Corday, Clayton
 James A. Diestelhorst, Creve Coeur
 Ramon R. Dy-Ragos, Kansas City
 Anthony L. Ferro, St. Louis
 Jose M. Fiseher, N. Kansas City
 Gerald E. Fox, St. Joseph
 Theodore J. Glenn, Cape Girardeau
 Edward Goldsieh, Kansas City
 Michael E. Grim, Joplin
 Duane Q. Hagen, St. Louis
 Alex Harell, St. Louis
 Calvin D. Hawkins, Springfield
 Hiremathada Jayanandaiah, Hannibal
 Steven T. Joyee, Kansas City
 Christopher H. Jung, Cape Girardeau
 Nicholas C. Kamakas, Florissant
 Ruth Kauffman, Versailles
 Kenneth W. Koldys, Cape Girardeau
 Soung Oh Kwoun, Poplar Bluff

Leticia D. Lacson, Chesterfield
 Henry E. Lestmann, Poplar Bluff
 Warner B. Massey, Poplar Bluff
 Maleakal S. Mathew, St. Louis
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 John B. Shapleigh, St. Louis
 George J. Slahorek, Fort Leonard Wood
 Michael R. Soper, Kansas City
 James H. Spraul, St. Louis
 Edward M. Stevens, St. Joseph
 Pedro L. Suarez-Solar, St. Charles
 Elias M. Throne, Kansas City
 Daniel B. Toubes, Kansas City
 Edith S. Trugly, St. Louis
 Timothy T. Turner, St. Charles
 Juanito L. Villahermosa, Savannah
 Stephen J. Vitale, St. Louis
 Trevor F. Watson, Columbia
 Ernest E. Weinand, St. Joseph
 Nathaniel Winer, Kansas City



NEWS

From the Medical Schools

UNIVERSITY OF MISSOURI-COLUMBIA



Architect's drawing of the proposed Health Sciences Library/Learning Center at the University of Missouri-Columbia.

The Allen P. and Josephine B. Green Foundation of Mexico (Mo.) has made a \$25,000 grant to the University of Missouri-Columbia (UMC) Development Fund to be used for construction of a new Health Sciences Library.

Walter G. Staley, Sr., secretary-treasurer of the Foundation, made the presentation to UMC Chancellor Barbara Uehling.

The University has raised almost half of a \$2.8 million goal from private sources to match an appropriation to be sought from the state legislature. James Sunderland, vice-president and secretary of the Lester T. Sunderland Foundation of Kansas City, also announced a \$25,000 pledge toward the Library construction recently.

The Library will triple the space available to house the thousands of necessary books and periodicals for students and faculty in nursing, medicine and the health related professions, and practitioners throughout the state.

Preliminary plans for construction of a \$1 million ophthalmology clinic at the Health Sciences Center were approved in June by the UM system Board of Curators. The clinic is being funded by a grant from the Roy E. Mason and Elizabeth Patee Mason Memorial Education Fund.

The 8,900 square-foot, one-story building would be built east of University Hospital's Out-patient Clinics. A construction contract is expected to be let in November with occupancy scheduled for September, 1981.

Architects Devine, James, Labinski and Myers

of Kansas City have proposed a modular system that could eventually expand to five more similarly sized clinics in a two-story configuration.

Dr. Robert P. Burns, professor and chairman of ophthalmology, said the modular design "maximized both teaching capacity and patient convenience. A staff physician and resident will work in each grouping of four examination rooms, and the rooms are large enough for a patient and two companions." He added that much new, sophisticated diagnostic and treatment equipment will be purchased for the new facility.

A contract between the Columbia campus medical school and the Howard County Family Medical Care, Inc. to provide patient care in Fayette has been approved. It will also establish a program of advanced training for licensed physicians specializing in family medicine.

The nonprofit corporation was formed by a group of Fayette citizens, in cooperation with two local doctors, to bring more physicians into the community.

The \$300,000 contract with UMC will permit the not-for-profit corporation to secure and renovate a practice site and underwrite start-up expenses. After the practice is established, the amount will be returned from practice revenues.

The UMC medical school has a similar program in Fulton which was established in cooperation with a Callaway County citizens group. Dr. Jack Colwill, UMC professor and chairman of family and community medicine, said that 39 physicians have completed part of their training in Fulton during the six-year history of the center. He said that more than 70% of these graduates are now practicing medicine in smaller communities.

Members of the Fayette citizens group who formed the corporation include Fred Alexander, Bill Ayres, Doug Miller, Dale Graham, Henry Summers, Archie Hill, Wallace Jacobs III and Glen McElroy Jr.

Three UMC faculty physicians will move to Fayette to practice and direct the specialty training. One of them, Dr. Roger Hofmeister, associate professor of family and community medicine, was involved in the development of the Fulton

center. *Dr. Rick Gengelbach*, instructor in family and community medicine, and a third physician to be named later would join *Dr. Hofmeister* in Fayette.

Dr. Charles E. Mengel, chairman of the Department of Medicine, is the new editor of the *Journal of Laboratory and Clinical Medicine*, official publication of the Central Society for Clinical Research. The editorial office of the journal will move from Mayo Graduate School of Medicine in Rochester, Minn. to UMC. The January, 1981 issue will come from this institution.

Drs. Daniel Winship, Karl Nolph and Dale Everett of the Department of Medicine faculty will serve as associate editors of the publication.

UNIVERSITY OF MISSOURI-KANSAS CITY

For the third consecutive year, Marion Laboratories has donated \$30,000 to the School of Medicine to be used for student financial aid. The gift was made at the direction of *Mr. Ewing Kauffman*, chairman of the board of Marion Laboratories and was presented to *Dean Harry S. Jonas* by *Mr. Charles Feld*, vice-president of Marion Laboratories.

Glenn H. Eberhart, Ph.D., assistant dean and chairman of the Council on Evaluation, has received his second AMOCO Distinguished Teaching Award. An associate professor of pharmacology, *Dr. Eberhart* first received the award in 1971. Students choose the recipient of the award that goes to a faculty member of the School of Pharmacy once every three years.

Charles B. Wilkinson, M.D., associate dean for development and professor of medicine, has been appointed to the editorial board of the *American Journal of Psychiatry* for a six-year period.

The research projects of four health sciences faculty members have been funded. The projects of *Dr. Harvey J. Freedman* and *Dr. David M. Yourtee* of the School of Pharmacy and *Dr. Anthony J. Hancock* and *Dr. Herbert A. Wenner* of the School of Medicine will be supported by proceeds the University received last year from the sale of its Weldon Spring property. These recipients and projects are *David M. Yourtee* and *Harvey J. Freedman*, Cancer Prevention Laboratory Research; *Anthony J. Hancock*, Isolation and Identification of the Metabolic Products of Cyclopentanetriol-Derived Lipids in Cultured Mammalian Cells; and *Herbert A. Wenner*, A Study of the Epidemiology and Possible Means of Control of Two Diarrheal Diseases Occurring During Infancy and Childhood.

ST. LOUIS UNIVERSITY

Frances L. Horvath, M.D., director of the St. Louis University Physician Assistant program, has been appointed dean of the School of Allied Health Professions.



Dr. Horvath

The School of Allied Health Professions encompasses six departments including physical therapy, dietetics, radiologic sciences, medical technology and the physician assistant program. The school, formerly part of the School of Nursing, became a separate school in 1979. *George E. Thoma*, M.D., vice-president for the medical center, had served as acting dean during the interim.

Dr. Horvath received her M.D. degree in 1967 from St. Louis University School of Medicine and has been a clinical instructor in pediatrics at the school since 1971.

Alice D. Kitchen, M.D., assistant professor of psychiatry, and *Frank Muriel*, director of television, received an Award of Merit for their videotape on "The Mourning Process: Ms. Kelly" by the Health Sciences Communication Association at their annual meeting this summer in Calgary, Canada.



Dr. Kitchen

The award was given for outstanding achievement in the use of television for education in the health sciences.

The program, which was authored and produced by *Dr. Kitchen* and directed by *Mr. Muriel*, was part of a five-part series on death and dying and was entered in the video division of the festival for outside productions. St. Louis University competed against more than 50 agencies and medical schools including Columbia University which received first place. The University of California took second place and the University of Texas took third place.

Joan Caddell, M.D., research professor of

pediatrics, was unanimously elected to both the American Institute of Nutrition and the American Society for Clinical Nutrition. She also was recently selected to serve as a contributing editor to "Nutrition Reviews," the official publication of the Nutrition Foundation, Inc.

The thrust of Dr. Caddell's research is on testing the hypothesis that magnesium deficiency is a major contributing factor of Sudden Infant Death Syndrome (SIDS). Her hypothesis was published in "Lancet" in 1972. She presented an experimental study in April at the 64th annual meeting of the Federation of American societies for Experimental Biology in Anaheim, Calif.

Dr. Caddell began her work in magnesium metabolism in 1962 at the Infant Malnutrition Research Unit in Kampala, Uganda, while a fellow of the Rockefeller Foundation.

Sister Maureen A. Murphy, S.S.M., senior medical student at the School of Medicine, will spend four months of her senior year in Thailand working with Cambodian refugees. The project is sponsored in part by a grant from the Smith Kline Medical Perspectives Fellowship and is administered by the National Fund for Medical Education.

Sister Murphy will prepare for her senior elective by studying diseases and parasitology with J. Joseph Marr, M.D., professor of internal medicine and Leonard Laskowski, Ph.D., professor of pathology.

Igor Ilinsky, M.D., Ph.D., assistant research professor of anatomy, and his wife and co-worker, *Kristy Kultas-Ilinsky*, Ph.D., assistant professor of anatomy, have received a \$10,000 grant from the American Parkinson Disease Association. The grant is for basic research investigating the mechanisms involved in the development of the symptoms of Parkinson's Disease.

Dr. Ilinsky received his M.D. and Ph.D. degrees in Moscow and worked as assistant professor of neurosurgery at Moscow Neurosurgical Institute. Dr. Kristy Kultas-Ilinsky received her Ph.D. at the Brain Research Institute in Moscow and since then has been conducting research in the field of electron microscopy of the central nervous system.

The World Health Organization (WHO) has awarded \$21,318 to *Randolph Berens*, Ph.D., assistant research professor, Department of Internal Medicine, to continue his investigation into Chagas' Disease. This amount represents the first year funding of a three-year grant.

Dr. Berens' work centers on the metabolism of

purines in *Trypanosoma Cruzi*, the organism responsible for this disease. The WHO includes Chagas' Disease, which is fatal, as one of the five infectious diseases considered to be among the world's greatest health problems. The disease is a major problem in Latin America where about six to eight million are infected.

WASHINGTON UNIVERSITY

August W. Giese, M.D., clinical professor of neurosurgery at the University of Missouri-Columbia and head of neurosurgery section of St. Luke's hospitals, became president of the Washington University Medical Center Alumni Association on July 1.

Dr. Giese, a 1956 graduate of Washington University School of Medicine, will maintain the presidency for one year. Other officers of the association are Drs. *Robert C. Drews*, past-president; *Frederick D. Peterson*, president-elect; *Richard Parson*, vice-president; and *John M. Kissane*, secretary-treasurer.

William H. Danforth, chancellor, has announced the appointment of *Luis Glaser*, Ph.D., professor and head of the Department of Biological Chemistry, as director of the Division of Biology and Biomedical Sciences at the University. The division is composed of members of the preclinical departments of the School of Medicine as well as the departments of biology and chemistry. A major function of the division is coordination of graduate admissions, evaluation and coursework. Dr. Glaser assumed his new position on July 1 and will also retain his current duties. He replaces *W. Maxwell Cowan*, Ph.D., M.B.B.Ch., who has accepted the directorship of the Weingart Laboratory at the Salk Institute in La Jolla, California.

Dr. Glaser has been a member of the School of Medicine faculty at Washington University since 1956 as an instructor in biological chemistry. In 1960, he became an assistant professor of biological chemistry; in 1962, associate professor; and in 1967, professor. He became chairman of the department in 1975.

Dwight C. McGoon, M.D., Stuart W. Harrington Professor of Surgery at the Mayo Medical School in Rochester, Minn. delivered the Tenth Annual Thomas H. Burford Lecture in Thoracic Surgery on June 20 at the School of Medicine. Dr. McGoon spoke on "25 Years of Surgery for Congenital Heart Disease."

(Continued on page 422)

New Members

Eleanor S. Abada, M.D., 716 Hanley Industrial Ct., St. Louis 63144, has become a member of St. Louis Metropolitan Medical Society. Dr. Abada is a native of the Philippines, received her preliminary education at the University of the Philippines and her M.D. degree at the University of the Philippines in 1972. She specializes in pathology.

Irving M. Asher, M.D., 11 S. Williams, Columbia 65201, has become a member of Boone County Medical Society. Dr. Asher is a native of Brooklyn, N.Y., received his preliminary education at Massachusetts Institute of Technology and his M.D. degree at Yale School of Medicine in 1974. He specializes in neurology.

David Brunworth, M.D., 12 Franklin, Washington 63090, has become a member of Franklin-Gasconade-Warren County Medical Society. Dr. Brunworth is a native of Alton, Ill., received his preliminary education at St. Louis College of Pharmacy and his M.D. degree at the University of Missouri-Columbia in 1973. He specializes in family practice.

David A. Caplin, M.D., 456 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Caplin is a native of New York City, N.Y., received his preliminary education at Kenyon College and his M.D. degree at the University of Cincinnati in 1975. He specializes in plastic surgery.

Frank J. Catanzaro, Jr., M.D., 3660 Vista, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Catanzaro is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri-Columbia in 1978. He specializes in ophthalmology.

John E. Codd, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Codd is a native of Spokane, Wash., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1970. He specializes in general and thoracic surgery.

Richard A. Covert, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Covert is a native of Chicago, Ill., received his preliminary

education at Rensselaer Polytechnic Institute and his M.D. degree at St. Louis University in 1979. He specializes in family practice.

C. Edward Felker, III, M.D., #8 Doctors Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Felker is a native of Sikeston, received his preliminary education at Lambuth College and his M.D. degree at the University of Missouri-Columbia in 1976. He specializes in otolaryngology.

Rodrigue J. Francois, M.D., 4601 N. Whittier, St. Louis 63113, has become a member of St. Louis Metropolitan Medical Society. Dr. Francois is a native of Haiti, received his preliminary education at the State University of Haiti and his M.D. degree at the State University of Haiti in 1961. He specializes in ophthalmology.

S. Vic Glogovac, M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Glogovac is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1973. He specializes in orthopedic surgery.

Pushpa Gursahani, M.D., 7943 Big Bend Blvd., St. Louis 63119, has become a member of St. Louis Metropolitan Medical Society. Dr. Gursahani is a native of India, received her preliminary education at Science College and her M.D. degree at Nagpur Medical School in 1970. She specializes in pediatrics.

Gary A. Hanson, M.D., #25 Doctors Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Area medical Society. Dr. Hanson is a native of St. Helena, Calif., received his preliminary education at Loma Linda University and his M.D. degree at Johns Hopkins University in 1975. He specializes in internal medicine.

James P. Jorgensen, M.D., #30 Doctors Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Jorgensen is a native of Oakland, Calif., received his preliminary education at the University of California-Berkeley and his M.D. degree at St. Louis University in 1970. He specializes in anesthesiology.

Ricardo A. Labayen, M.D., 4400 Broadway, Suite 306, Kansas City 64111, has become a mem-

ber of Jackson County Medical Society. Dr. Labayen is a native of the Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at Santo Tomas in 1964. He specializes in general surgery.

Ted E. Lockwood, M.D., 4400 Broadway, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Lockwood is a native of Amarillo, Tex., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1971. He specializes in plastic surgery.

William G. Marietta, M.D., #25 Doctors Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Marietta is a native of Latrobe, Pa., received his preliminary education at Carnegie-Mellon University and his M.D. degree at Hahnemann Medical College in 1975. He specializes in cardiovascular diseases.

William D. McKinney, Jr., M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. McKinney is a native of Ironton, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in family practice.

Ann L. McLaren, M.D., 1755 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. McLaren is a native of London, received her preliminary education at The Bolton School and her M.D. degree at the University of London in 1969. She specializes in family practice.

Richard L. Muchnick, M.D., 3015 N. Ballas Rd., St. Louis 63131, has become a member of St.

Louis Metropolitan Medical Society. Dr. Muchnick is a native of St. Louis, received his preliminary education at Purdue University and his M.D. degree at St. Louis University Medical School in 1976. He specializes in internal medicine.

Richard G. Murney, Jr., M.D., H. S. Truman VA Hospital, 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Murney is a native of St. Louis, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1976. He specializes in internal medicine.

Barry L. Nickell, M.D., 132 Medical Plaza, 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Nickell is a native of Chicago, Ill., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1976. He specializes in internal medicine.

Howard I. Schwartz, M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Schwartz is a native of St. Louis, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1978. He specializes in obstetrics and gynecology.

Paul W. Sheffner, M.D., 4940 Audubon, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Sheffner is a native of Chicago, Ill., received his preliminary education at Wabash College and his M.D. degree at Washington University in 1974. He specializes in internal medicine.

Scott W. Snyder, M.D., P. O. Box 93, Washington 63090, has become a member of Franklin-Gasconade-Warren County Medical Society. Dr. Snyder is a native of Chicago, Ill., received his preliminary education at the University of Colorado and his M.D. degree at Washington University in 1976. He specializes in anesthesiology.

James E. Thompson, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Thompson is a native of Birch Tree, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University

(Continued on page 421)

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A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC[®] ^{CV}

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache. Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e., more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlorthalidone,

azepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood and in near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or am-

phetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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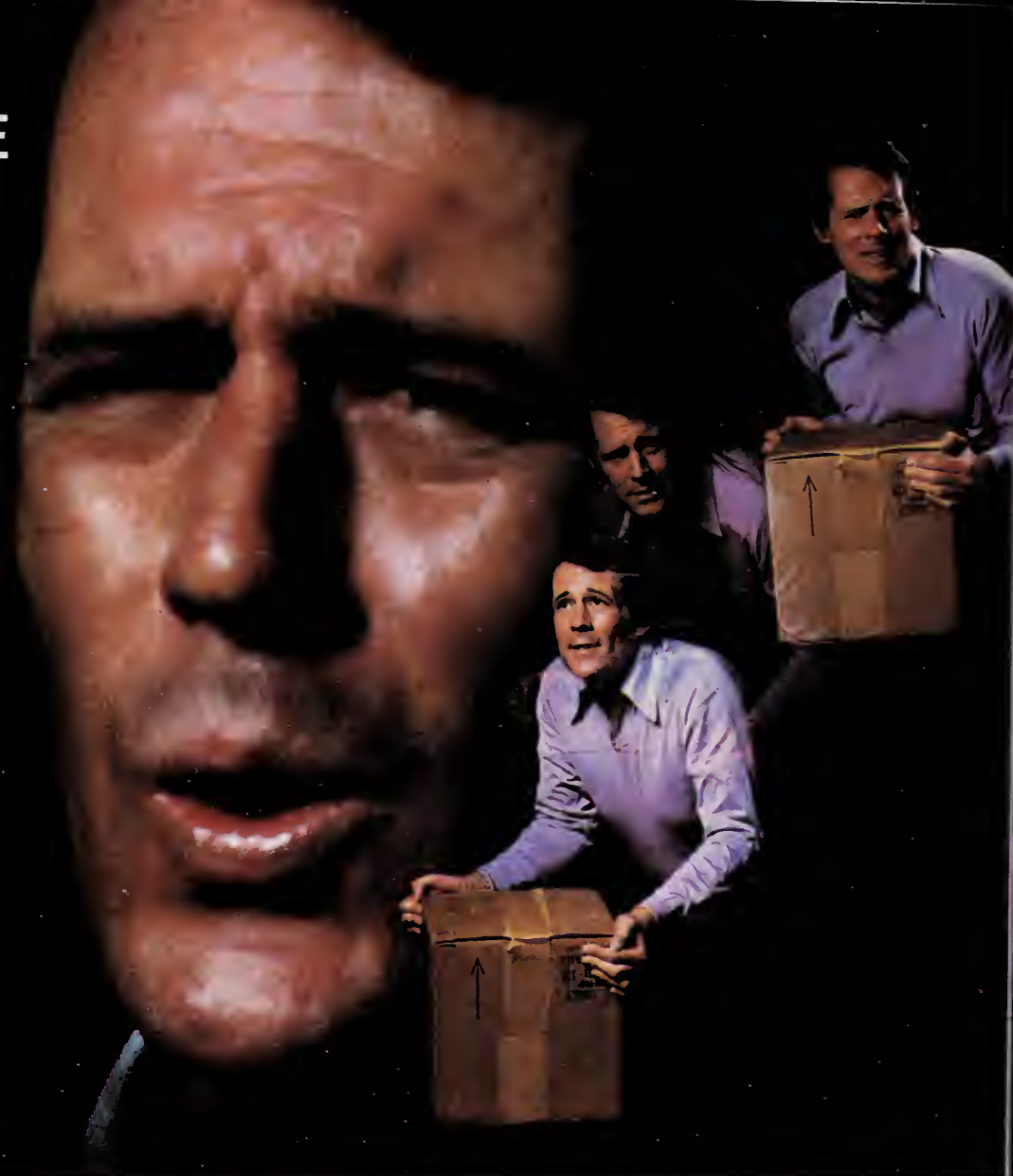


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of two complementary
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economy of a
dosage schedule of
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hours as needed



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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdosage).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety, and a suitable dosage regimen in the pediatric group. **PRECAUTIONS:** Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see Warnings) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSEAGE: SYMPTOMS The manifestations of serious overdose with propoxyphene are similar to those of narcotic overdose and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdose with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardialopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analgesic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdose (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977) Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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of Missouri-Columbia in 1979. He specializes in emergency medicine.

Alan S. Wasserman, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Wasserman is a native of St. Louis, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1979. He specializes in obstetrics and gynecology.

Robert J. Williams, D.O., 1214 N. Middle St., Farmington 63640, has become a member of St. Louis Metropolitan Medical Society. Dr. Williams is a native of Lindsay, Okla., received his preliminary education at Central Oklahoma University and his D.O. degree at the Kansas City Osteopathic College in 1954. He specializes in psychiatry.

John E. Wolfe, M.D., 1550 E. Sunshine, Springfield 65804, has become a member of

Greene County Medical Society. Dr. Wolfe is a native of Wellington, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1968. He specializes in pulmonary diseases.

David Tsung-Ming Wong, M.D., 8520 Brookhollow, Wichita, Kan. 67206, has become a member of Grand River Medical Society. Dr. Wong is a native of Taiwan, received his preliminary education at Kaohsiung University and his M.D. degree at Kaohsiung University in 1960. He specializes in urology.

Rashid Zia, M.D., 4961 Heineken, St. Louis 63129, has become a member of St. Louis Metropolitan Medical Society. Dr. Zia is a native of India, received his preliminary education at the University of Karachi and his M.D. degree at the University of Karachi in 1965. He specializes in psychiatry.

New Student Members

St. Louis University

Philip Asaro
Maria Brazil
Daniel S. Brown
Edward R. Broun
Patrick M. Brown
Maureen M. Burke
Marc C. Clawson
melissa K. Copeland
Danis P. Godfrey, III
Mark Deardorff
James K. DeMarco
Mark T. Dollar
Frank J. Fasano, Jr.
John R. Fitz
Paul E. Florentino

John P. Galgani
Michael Guignon
Patricia Ann Guithues
Scott E. Hardy
Eliot B. Hoffman
Scott P. Holtz
Rick G. Hummel
Richard S. Jany
John Kelso
Thomas F. Lieb
Rosemary E. McGeady
Garth Nelson
Kenneth M. Nitta
Jerome O'Neil, Jr.
Peter H. Oostwouder

Catherine Pucelik
Matthew Riffle
David Roehrs
Joe Rudolph
Robert Schaaf
John J. Schaffer
Louis W. Sieben
Jon David Sisler
Bruce E. Shevlin
Philip T. Suarez
Richard W. Suda
Richard G. Thorlakson
Jeffrey L. Weingarten
Robert G. Wiencek, Jr.
Susan P. Willman

University of Missouri-Columbia

Mark A. Adams
John B. Andelin
Stephen Dahlem
Bruce C. Harris

Gilbert L. Hyde
William G. Keyes
Marvin L. Mack

Carl F. Patty
Kevin L. Schewe
Robert D. Weber

University of Missouri-Kansas City

Suzanne Bergen

Terry E. Hall

Wendell J. Scott

From the Medical Schools

(Continued from page 418)

Dr. Burford was head of the Division of Thoracic Surgery at the School of Medicine from 1951 to 1964. He was in private practice from 1964 until his retirement in 1976. He died in 1977. Dr. Burford gained national prominence during World War II for his survival management of thoracic war wounds. He was a founding member of the Board of Thoracic Surgery and the Society of Thoracic Surgeons.

Dr. McGoon is an internationally recognized cardiac surgeon especially noted for his design of a long series of innovative reconstructive procedures for the repair of complicated congenital malformations of the heart. Currently, he is editor of the *Journal of Thoracic and Cardiovascular Surgery* and serves on the editorial boards of *Circulation, Surgery, The American Journal of Cardiology* and *The American Heart Journal*.

The American Academy of Child Psychiatry elected *E. James Anthony, M.D.* to the position

of president-elect. Dr. Anthony, who will accede to the presidency of the Academy in 1981, is director of the William Greenleaf Eliot Division of Child Psychiatry and is the Blanche F. Ittleson Professor of Child psychiatry at the School of Medicine.

A scholar and researcher of international reputation, Dr. Anthony joined Washington University in 1958, accepting the first endowed chair in psychiatry in the world. He serves as senior consultant to the National Institutes of Mental Health. In 1977-1978 he chaired the Task Force on Adolescence, part of the President's Commission on Mental Health. He has said that almost five million children in America today need immediate psychiatric help, but such help is now available to only 500,000 of them. In contrast, he said that 5.6 million of the 7.5 million children identified as physically handicapped receive assistance.

In Memoriam

Thomas B. Hall, M.D., 612 Shamrock La., Apt. 310, Lee's Summit 64063; a graduate of St. Louis University, 1923; member of Jackson County Medical Society; age 82; died June 5, 1980.

Otto J. Printz, M.D., 601 E. 63rd, Suite 410, Kansas City 64110; a graduate of the University of Kansas, 1927; member of Jackson County Medical Society; age 77; died June 6, 1980.

Jerome I. Simon, M.D., 12 Westridge Ct., St. Louis 63124; a graduate of St. Louis University,

1928; member of St. Louis Metropolitan Medical Society; age 78; died June 16, 1980.

David E. Musgrave, M.D., 420 N. Kimball, Excelsior Springs 64024; a graduate of Northwestern University, 1936; member of Clay County Medical Society; age 72; died June 18, 1980.

Charles H. Tan, M.D., 9293 Watson Rd., St. Louis 63126; a graduate of National Taiwan University; 1956; member of St. Louis Metropolitan Medical Society; age 50; died July 3, 1980.



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in Brief

A summary of AMA, medical & health news

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THE MEDICAL PROFESSION WON the long battle to prevent the Dept. of Health and Human Services (HHS) from releasing a list of physicians who got Medicare payments in 1977. The Florida Medical Association and AMA filed suit in 1978, and 1979 a U.S. District Court ruled that publication was unlawful. After a number of extensions, the final court date passed without an appeal and HHS asked for voluntary dismissal. The dispute goes back to March, 1977 when the government released a list of physicians who supposedly received \$100,000 or more from Medicare in 1975. An AMA survey showed an error rate of 65%. HHS (then HEW) apologized, but said it intended to publish another list. The AMA protested, saying that publication of the names of physicians and the amounts they received for services would be "an inherent violation of privacy" and would result in instances of "gross injustice."

A PROPOSED AMENDMENT to marijuana legislation now before Congress, which would maintain existing criminal penalties for simple possession, may be too extreme, the AMA told the Senate Judiciary Committee in a previous statement to the House Judiciary Committee, the AMA urged Congress to be "especially careful not to convey to young people and their parents the message that society now sanctions marijuana use." However, the Association expressed concern over "the stigma that any period of imprisonment or a felony conviction attaches to a young person's record and the lifelong barriers to many avenues of employment and other future development that may result from sporadic use of marijuana or even a moment of youthful misdirection." The AMA called for a middleground treatment of people found guilty of simple possession of marijuana and for severe penalties for those who traffic in the illicit marketing of controlled substances, including marijuana.

THE AMA'S UNIFORM HEALTH INSURANCE Claim Form has been mandated by the Health Care Financing Administration for use in all Part B Medicare reimbursement and is the "preferred" form for use in the Medicaid program. The form was developed under the aegis of

the AMA Council on Medical Service in cooperation with the Health Insurance Association of America and the Blue Cross and Blue Shield Associations. The form is being modified slightly for use in the Medicaid program. The current form will be used until the revised version becomes available about mid-summer. The forms may be purchased through the AMA. For more information contact the Department of Health Care Delivery Systems, AMA Headquarters, phone (312) 751-6395.

"MANAGEMENT RESOURCES Exchange Guide" is a bibliography of articles available in reprint through the American Association of Medical Society Executives. The new publication covers such areas as personnel management, finances, membership, insurance programs, law and regulations and publishing. Included is a list of books and pamphlets available on a loan basis. For a copy of the *Guide*, send \$5 to AAMSE, AMA Headquarters.

THE AMA OFFERED TO ASSIST in efforts to improve domestic blood banking policies and programs. "We believe that this goal can be achieved without recourse to legislation," the AMA told the Senate Subcommittee on Health and Scientific Research. In 1979, legislation was introduced to prohibit the charging of a non-replacement fee by any blood bank or hospital. In response to a request for its views, the Association cited its support for maintenance of the non-replacement fee in blood banking. The AMA pointed out in its letter to the subcommittee that the American Association of Blood Banks and the American National Red Cross are now working on a voluntary cooperative system for sharing their resources that could obviate the need for this legislation.

THE BACKGROUND, RECENT ACTIVITY and AMA position on 21 "Health Legislative Issues, 1980" are detailed in a new booklet prepared by the AMA Division of Legislative Activities. Copies have been sent to state, metropolitan, county, and specialty societies. Additional copies are available from the Department of Federal Legislation.

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CORNER OFFICE SUITE — 1,000 sq. ft. for rent in St. Louis University Club Tower Building. Consultation room, laboratory, business office, three treatment rooms and reception room, some carpeted, draped and panelled. October 1, approximate availability. Call Dr. James Bucy, (314) 862-6070.

4½-DAY WORK WEEK — For ABFP certified physician to join two others in an established three-man general practice included OB. One-half day per week teaching Family Practice residents in local University of Missouri Medical Center satellite clinic. 1½ days off per week. Rotate Sunday call. Office adjacent to County Hospital. College town. 25 miles from University of Missouri Medical School, 60 miles from Lake of the Ozarks. Start immediately. Contact Dean Breshears, M.D. or George Groce, M.D., 820 Jefferson, Fulton, MO 65251. Phone (314) 642-6691.

EMERGENCY PHYSICIANS — St. Louis area hospitals; Emergency physicians, family practitioners and internists desiring emergency medicine are wanted. Positions open for staff and directorship; \$75,000-\$90,000 per year for a 48-hour week. Malpractice, vacations and CME conventions paid for. For information, send C.V. to EMERGENCY MEDICAL CARE, INC. 14268 Finger Lake Dr., St. Louis, MO 63017; phone 314-227-3680.

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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The Cooper County Medical Society met at St. Joseph's Hospital in Boonville on March 27. The following physicians were elected as officers: president, G. L. Chamberlain, New Franklin; vice-president, C. H. Van Ravensway, Boonville; and secretary, J. C. Tincher, Boonville.

The Dallas-Hickory-Polk County Medical Society met at 3:30 PM on April 2 in the office of Dr. L. A. Glasco, Urbana. Present were Drs. V. H. Greenwood, R. E. Harrell and G. C. Plummer, Buffalo; C. H. Brown, Fairplay; T. R. Wrinkle, Halfway; L. A. Glasco, Urbana; and Robert Vinyard and F. R. Farthing, Springfield.

The St. Francois-Iron-Madison-Washington-Reynolds County Medical Society met on March 29 at the St. Francois County Courthouse in Farmington. The following officers were elected: president, P. L. Jones, Flat River and vice-president, W. H. Varron, Fredericktown. G. Tivis Graves, Jr., Farmington, was reelected secretary-treasurer.

The birth rate in 1939 for Missouri was the highest recorded since 1931, according to the State Board of Health. The 1939 rate was 16.35 per 1,000 population. The death rate approached a new low with a crude rate of 10.86. With the rates reported per 100,000 population, the leading causes of death were heart disease, 265.20; cancer, 126.17; nephritis, 107.55; cerebral hemorrhage, 89.20; and all forms of tuberculosis, 45.65.

TEN YEARS AGO

Vernon E. Wilson, M.D., vice-president for Academic Affairs for the University of Missouri, has been named administrator of the Health Services and Mental Health Administration, the federal agency that operates the Medicaid and Regional Medical programs. A pharmacologist, Dr. Wilson was named dean of the School of Medicine in Columbia in 1959. He became the school's executive director for health affairs in

1967 and vice-president in 1968.

On May 22, 1970, Missouri Attorney General John C. Danforth issued an opinion that the state's statute that requires that candidates for licenses as physicians and surgeons in the state of Missouri shall be citizens of the United States is unconstitutional. On June 1, he opined that pathology is a branch of the practice of medicine and is a profession under the jurisdiction of the State Board of Registration for the Healing Arts.

James C. Sisk, M.D., St. Louis, has been elected the new president of St. Louis Blue Shield, succeeding Raymond A. Muether, M.D., St. Louis, who retired after serving in the post since 1960. Dr. Sisk, a dermatologist, received his M.D. degree from Washington University School of Medicine in 1946.

TWENTY-FIVE YEARS AGO

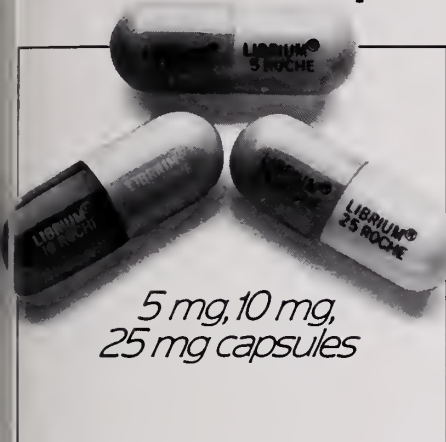
The Grand River Medical Society met on June 9, 1955 at the Strand Hotel in Chillicothe. Twenty-five members and 18 auxiliary members enjoyed the fine dinner. The Annual Golf Tournament was held in the afternoon at the Chillicothe Country Club. Dr. C. L. Clark won the trophy. Dr. Joseph Conrad had the highest score and Dr. John Martin the least number of putts.

The special doctor's draft act, originally passed at the time of the Korean episode, has been extended for two more years during these times of peace. The extension is from July 1, 1955 to June 30, 1977. While all citizens through the age of 26, physicians, dentists and veterinarians are subject to draft through the age of 45. It no longer applies to doctors over 46 years of age (formerly 51).

The Marion-Ralls-Shelby County Medical Society and corresponding Dental Society held a dinner meeting at the Mark Twain Hotel on May 19. The doctors and dentists had as guests their wives, office secretaries and assistants and their husbands. Seventy people enjoyed a pleasant evening of a social hour followed by a delicious smorgasbord and the formal program.

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Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and

acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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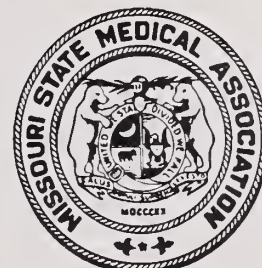
Aug. 15, 1980

*Annual
Directory*

**1980-1981
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ROSTER**

**Missouri
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SEP 17 1980



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How to Use This Roster

This Roster issue includes two lists of members of the Missouri State Medical Association as of July 1, 1980.

The **ALPHABETICAL ROSTER** on **PAGE 442** includes each member's component society name and number. A list of component society code numbers appears on page 431.

In the **COMPONENT SOCIETY ROSTER** on **PAGE 477**, the primary specialty appears after the member's name and address. **County societies are listed by code numbers in numerical order.** See page 441 for explanation of specialty codes.

MSMA Auxiliary

The **Roster for the Missouri State Medical Association AUXILIARY** is published in the *Missouri Auxiligram*. For information, please contact the MSMA Headquarters office.

For other departments, please refer to the table of contents above.

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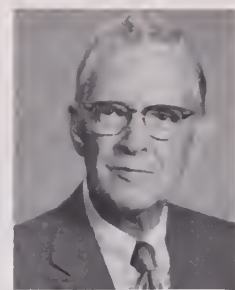
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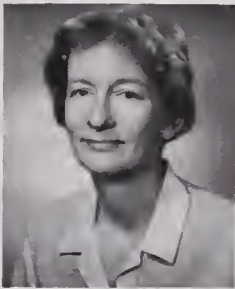
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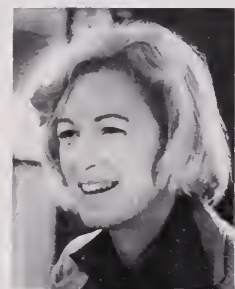
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(1980-1981)



George M. Bohigian
(1979-1980, 1981-1982)

Alternate Delegates



Vernon Balster
(1980-1981)



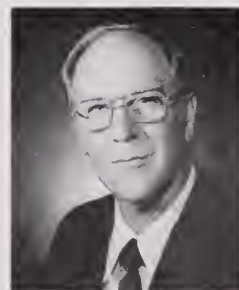
Andrew McCanse
(1980, 1981-1982)



Marvin A. Singleton
(1980-1981)



Richard V. Bradley
(1980, 1981-1982)



Richard P. Bowles
(1979-1980, 1981-1982)

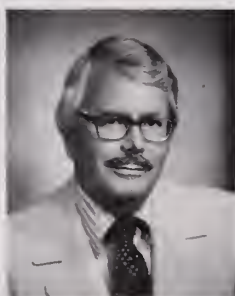
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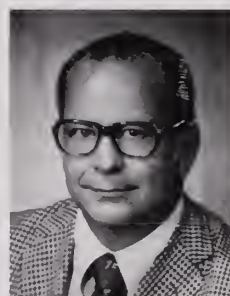
Richard C. Hedges
First District



John H. Walterscheid
Second District



Thomas J. Cooper
Third District



Richard H. Fallon
Third District



James M. Stokes
Third District



H. Peter Ekern
Fifth District



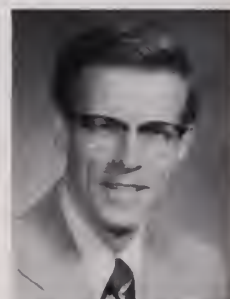
R. John Torontow
Sixth District



Irving H. Clark
Seventh District
(Vice-Chairman)



Donald McIntosh
Seventh District



Ronald A. Youmans
Seventh District

Vic



Gary A. Dyer
First District



Patricio Avila
Second District



Gerard M. Callaghan
Third District

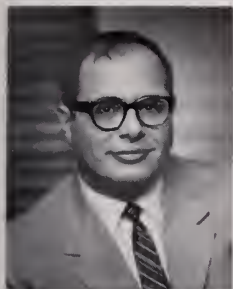


William R.
Richardson
Fourth District

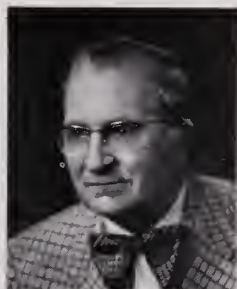


Larry E. Millikan
Fifth District

council



Theodore L. Paletta
Third District



J. Otto Lottes
Third District



Frederick D. Peterson
Third District



Paul H. Rother
Fourth District



John I. Matthews
Fifth District
(Chairman)



Walter A. German
Eighth District



Marvin A. Singleton
Eighth District



Jack Wiles
Ninth District



George H. Ladyman
Tenth District

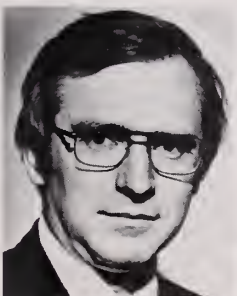


Dianne Budd
Student Councilor

councilors



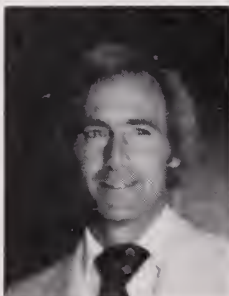
A. J. Campbell
Sixth District



Larry G. Piepergerdes
Seventh District



Charles J. Ash
Eighth District



O. Martin Hasek
Ninth District



Kim Webb
Student
Vice-Councilor

MSMA Committees and Commissions 1980-1981

STANDING COMMITTEES

Constitution and Bylaws—Robert R. McDonald, St. Louis, *Chairman* (1982); William D. Soper, Liberty (1981); Roy Gillispie, Branson (1981); R. Stacy Long, Kansas City (1982); Miles C. Whitener, St. Louis (1983).

Executive Committee—Richard V. Bradley, St. Louis, *Chairman*; Eugene T. Hansbrough, Poplar Bluff; B. A. Moranville, Columbia; Carol F. Williams, St. Louis; John I. Matthews, Jefferson City; Irving H. Clark, Kansas City (1981).

Impaired Physician—Arnold S. Block, St. Louis, *Chairman* (1982); Francis X. Lieb, St. Louis (1981); James E. Young, Kansas City (1981); Henry V. Guhleman, Jefferson City (1983); David L. Ohlms, St. Louis (1983).

Legislative Affairs—John I. Matthews, Jefferson City, *Chairman*; Richard V. Bradley, St. Louis; Eugene T. Hansbrough, Poplar Bluff; Irving H. Clark, Kansas City; Hubert A. Ritter, St. Louis; Douglas Westhoff, Jefferson City; Walter A. German, Springfield; Richard C. Hedges, North Kansas City (1981).

Planning—E. Rule Olson, Springfield, *Chairman* (1981); James A. Hasek, Mountain Grove (1981); William W. Haynie, Butler (1982); J. Will Fleming Moberly (1982); Sammy L. Farrell, Washington (1983); Joseph R. Prokop, St. Joseph (1983); Melvin C. Kasten, Cape Girardeau (1984); Gerald Hoxworth, Mexico (1984); George M. Bohigian, St. Louis (1985); Fred D. Fowler, Kansas City (1985).

Publication—Wilfred E. Wooldridge, Springfield, *Chairman*; Ernest Lorenc, Springfield; William C. Mixon, Kansas City; Charles S. Sherwin, St. Louis; Byron M. Stuart, Boonville (1981).

Voluntary Health Agencies—Brent M. Parker, Columbia, *Chairman* (1983); John D. Arnold, Kansas City (1981); Guy Magness, University City (1981); Darrel Domann, Springfield (1982); Newton C. McCluggage, North Kansas City (1982).

STANDING COMMISSIONS

Continuing Education and Health Manpower—William D. Bradshaw, Columbia, *Chairman* (1982); Raymond O. Frederick, Clayton (1981); Gerard M. Callaghan, St. Louis (1981); Charles N. Mullican, St. Joseph (1981); Larry Ozenberger, Plattsburg (1981); George D. Comfort, Mexico (1981); L. Arden Almquist, Kansas City (1982); Manuel R. Comas, Manchester (1982); John C. Soucy, St. Charles (1982); Charles A. Worley, Sweet Springs (1982); Christopher H. Jung, Cape Girardeau (1983); Wilbur A. Mullarky, St. Ann (1983); Walter C. Dandridge, Jr., Joplin (1983); W. Wayne Boydston, Odessa (1983); H. Neal Grannemann, Rolla (1983).

Interspecialty Medicine—*Missouri Ear, Nose & Throat Association*—Donald G. Sessions, St. Louis, *Chairman*; *Missouri State Allergy Association*—Larry E. Millikan, Columbia; *Missouri Dermatological Society*—Larry E. Millikan, Columbia; *Missouri Chapter, American College of Emergency Physicians*—R. R. Hannas, Jr., Kansas City; *Missouri Academy of Family Physicians*—Carl R. Kruse, Palmyra; *Federation of Missouri Urologists*—Jack D. Moore, Kansas City; *Missouri Society of Internal Medicine*—R. William Burmeister, St. Louis; *Missouri State Neurological Society*—Francis S. Walker, St. Louis; *Missouri OB-GYN Society*—George J. Fuchs, Columbia; *Missouri Ophthalmological Society, Inc.*—Robert F. Tobin, St. Joseph; *Missouri State Orthopaedic Association*—Charles J. Ash, Springfield; *Missouri Society of Pathologists*—William R. McPhee, Kansas City; *Missouri Chapter, American Academy of Pediatrics*—Donald L. Thurston, St. Louis; *Physical Medicine and Rehabilitation*—Otakar Machek, St. Louis; *Missouri Psychiatric Association*—Duane Hagen, St. Louis; *Missouri Radiological Society*—William McAlister, St. Louis; *Missouri Chapter, American College of Surgeons*—Charles B. Anderson, Clayton; *Missouri State Surgical Society*—Cyril Costello, St. Louis; *Missouri Thoracic Society*—James R. Wiant, St. Louis (1981).

Medical Economics, Third Party Medicine and Governmental Relations—Stanley S. Peterson, Springfield (1981); John R. Esther, Joplin (1981); Thomas H. Henden, Liberty (1981); R. Phillip Acuff, St. Joseph (1981); A. E. Braverman, Kansas City (1981); Mary K. McCaffree, Jefferson City (1982); Max A. Heeb, Sikeston (1982); James L. Carpenter, St. Charles (1982); Philip A. Sherman, Lebanon (1982); Fred W. Hahn, Kansas City (1983); Charles H. Cozean, Cape Girardeau (1983); Frederick L. Thompson, Nevada (1983); Arturo C. Montes, Florissant (1983); Robert J. Stanley, St. Louis (1983).

Medical-Legal Affairs—William J. Medicott, Kansas City, *Chairman* (1982); Fred H. Thornton, Sikeston (1981); William R. McPhee, Kansas City (1981); George L. Hawkins, Jr., St. Louis (1981); Edward Bare, Tarkio (1981); Richard O. Craig, St. Joseph (1981); David W. Hall, Rogersville (1982); Jay Meyer, St. Louis (1982); Bernard Draper, Rolla (1982); Gil Manalo, Carthage (1982); Robert H. Lund, St. Louis (1983); Richard Bower, St. Louis (1983); Charles B. Wheeler, Kansas City (1983); Vicente D. Deles, Crystal City (1983); Garth S. Russell, Columbia (1983).

Public Affairs—Jean A. Chapman, Cape Girardeau, *Chairman* (1981); A. J. Campbell, Sedalia (1981); Sharon Waggoner, St. Joseph (1981); Harry S. Jonas, Kansas City (1981); Robert F. Tobin, St. Joseph (1981); Ben A. Moranville, Columbia (1982); Byron E. Watts, Jefferson City (1982); George Bohigian, St. Louis (1982); Lawrence W. O'Neal, St. Louis (1982); Vernon H. Balster, St. Louis (1982); Charles L. Jobe, Springfield (1983); Elias M. Throne, Kansas City (1983); Marvin R. Barbour, Poplar Bluff (1983); Leslie F. Bond, St. Louis (1983); Edward J. Miller, St. Louis (1983).

Component Societies in Affiliation With the Missouri State Medical Association

COUNTY	DISTRICT	PRESIDENT	ADDRESS	SECRETARY	ADDRESS
Andrew	1.	Gilbert B. Kelley	Savannah	Warren C. Baker	Savannah
Audrain	5.	Ben N. Jolly	Mexico	Mary Mullen	Mexico
Barton	8.	Alvin R. Cain	Lamar	Enrique Piedra	Lamar
Boone	5.	James Pickens	Columbia	Gilbert Ross	Columbia
Buchanan	1.	R. Philip Acuff	St. Joseph	Eugene G. Wolanski	St. Joseph
Butler-Wayne-Ripley-Carter	10.	Ben Till	Poplar Bluff	John L. Hunt	Poplar Bluff
Callaway	5.	Vernon B. Jackson	Fulton		
Cape Girardeau County Area Medical Society, Inc.	10.	C. John Ritter	Cape Girardeau	Kennett D. Asher	Jackson
Chariton-Macon-Monroe-Randolph	2.	Trinidad J. Aguilera	Moberly	Javed Bangash	Moberly
Clay	1.	Fred A. Thomas	Kansas City	Gary D. Cooper	Liberty
Clinton	1.	J. H. Sweiger	Plattsburg	L. A. Ozcnberger	Plattsburg
Cole	5.	John J. Falzone	Jefferson City	David A. Marty	Jefferson City
Cooper	5.			E. T. Humphreys	Boonville
Dallas-Hickory-Polk-Dade	8.	Bill M. Carnell	Buffalo	Ruth S. Rios	Bolivar
Dunklin	10.	Surat Sinasa	Kennett	Quinton Tarver	Kennett
Franklin-Gasconade-Warren	4.	Gordon W. Stine	Washington	James Shaw	Washington
Grand River Medical Society (Caldwell-Carroll-Livingston- Grundy-Daviess-Harrison- Linn-Mercer-DeKalb)	1.	John F. Rose	Chillicothe	Albert D. Cross	Trenton
Greene	5.	Bill G. Prater	Springfield	Barry Farber	Springfield
Henry	6.	R. H. King	Clinton	K. F. Scott	Clinton
Howard	5.			Maurice P. Leech	Fayette
Jackson	7.	Milton B. Ozar	Kansas City	George E. Volk	Kansas City
Jasper	8.	Edward Grien	Joplin	Jimmy D. Frogge	Joplin
Jefferson	10.	Michael K. Blank	DeSoto	E. V. Verzola	Herculaneum
Johnson	6.	Keith D. Jones	Warrensburg	Robert L. Cooper	Warrensburg
Laclede	9.			Gary Courter	Lebanon
Lafayette-Ray	6.	Theodore George	Richmond	Catherine Boydston	Odessa
Lake of the Ozarks Medical Society (Camden-Miller- Morgan)	5.	Chris K. Fotoponlos	Osage Beach	Melvin R. Hayden	Camdenton
Lewis-Clark-Scotland	2.			L. Y. Davis	Canton
Marion-Ralls-Shelby	2.	Francis Burns	Hannibal	James Roller	Hannibal
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski- Maries)	9.	Hugh C. Bartlett	Rolla	Neal Grannemann	Rolla
Mineral Area Medical Society (St. Francois-Iron-Madison- Washington-Reynolds-Bollinger)	10.	Jack Mullen	Bonne Terre	Walter Gray	Farmington
Moniteau	5.	Kenyon S. Latham	California	Lionel M. Gallagher	California
Montgomery	5.			Samuel J. Byland	Wellsville
North Central Counties Medical Society (Adair-Schuyler-Knox- Sullivan-Putnam)	2.			Milton T. English	Kirksville
Northwest Missouri Medical Society (Nodaway-Holt-Atchison- Gentry-Worth)	1.	John M. Wanamaker	Rock Port	Patrick B. Harr	Maryville
Ozarks Medical Society (Barry- Lawrence-Stone-Christian-Taney- Newton-McDonald)	8.	Andres G. Apostel	Monett	Larry Halverson	Aurora
Pemiscot	10.	Andrew E. Painter	Portageville	James G. Hazel	Hayti
Perry-St. Genevieve	10.	Romeo R. Eugenio	Perryville	J. S. Yang	Ste. Genevieve
Pettis	6.			Won Sull	Sedalia
Pike	2.			Phil Pitney	Louisiana
Platte	1.			S. Lloyd Allen	Kansas City
St. Charles-Lincoln	4.	Michael J. Curry	St. Charles	William Sill	St. Charles
St. Louis Metropolitan Medical Society	3.	Edwin J. Cunningham	Ballwin	Jay L. Liss	St. Louis
Saline	6.	Richard C. Raynor	Marshall	Lec McCorkle	Marshall
SEMO County Medical Society (Stoddard-New Madrid-Mississippi- Scott)	10.	A. P. Sargent	Sikeston	Michael E. Critchlow	Sikeston
South Central (Howell-Oregon- Texas-Wright-Douglas-Ozark)	9.	O. Martin Hasek	Mountain Grove	Jack N. Wiles	West Plains
Webster	8.	T. M. Macdonnell	Marshfield	R. J. Bareis	Marshfield
West Central Missouri Medical Society (Bates-Cass-Cedar- St. Clair-Vernon)	6.	Louis E. Gehm	Butler	Frederick Thompson	Nevada

Guide to Component Medical Societies

Following is a list of Missouri communities in which MSMA member-physicians are in active practice or reside. Name of the community is followed by the county in which it is located and the medical society to which physicians of that community normally would belong.

Town County Medical Society

A

Advance	Stoddard	SEMO
Afton	St. Louis	St. Louis Metropolitan
Albany	Gentry	Northwest Missouri
Altenburg	Perry	Perry-St. Genevieve
Appleton City	St. Clair	West Central
Arnold	Jefferson	Jefferson
Ashland	Boone	Boone
Aurora	Lawrence	Ozarks
Ava	Douglas	South Central

B

Ballwin	St. Louis	St. Louis Metropolitan
Belton	Cass	West Central
Berkeley	St. Louis	St. Louis Metropolitan
Bethany	Harrison	Grand River
Bloomfield	Stoddard	SEMO
Blue Springs	Jackson	Jackson
Bolivar	Polk	Dallas-Hickory-Polk-Dade
Bonne Terre	St. Francois	Mineral Area
Boonville	Cooper	Cooper
Bourbon	Crawford	Mid-Missouri
Bowling Green	Pike	Pike
Branson	Taney	Ozarks
Braymer	Caldwell	Grand River
Brentwood	St. Louis	St. Louis Metropolitan
Bridgeton	St. Louis	St. Louis Metropolitan
Brookfield	Linn	Grand River
Browning	Linn	Grand River
Brunswick	Chariton	Chariton-Macon-Monroe-Randolph
Buckner	Jackson	Jackson
Buffalo	Dallas	Dallas-Hickory-Polk-Dade
Butler	Bates	West Central

C

Cabool	Texas	South Central
Cainesville	Harrison	Grand River
California	Moniteau	Moniteau
Camdenton	Camden	Lake of the Ozarks
Cameron	Clinton	Clinton
Cape Girardeau	Cape Girardeau	Cape Girardeau
Cardwell	Dunklin	Dunklin
Carrollton	Carroll	Grand River
Carthage	Jasper	Jasper
Caruthersville	Pemiscot	Pemiscot
Cassville	Barry	Ozarks
Centralia	Boone	Boone
Charleston	Mississippi	SEMO
Chesterfield	St. Louis	St. Louis Metropolitan
Chillicothe	Livingston	Grand River
Clarksville	Pike	Pike
Clayton	St. Louis	St. Louis Metropolitan
Clinton	Henry	Henry
Columbia	Boone	Boone
Concordia	Lafayette	Lafayette-Ray
Crane	Stone	Ozarks
Creve Coeur	St. Louis	St. Louis Metropolitan
Crystal City	Jefferson	Jefferson
Cuba	Crawford	Mid-Missouri

D

Desloge	St. Francois	Mineral Area
DeSoto	Jefferson	Jefferson
Dexter	Stoddard	SEMO
Doniphan	Ripley	Butler-Wayne-Ripley-Carter

E

East Prairie	Mississippi	SEMO
Edina	Knox	North Central

Town County Medical Society

Eldon	Miller	Lake of the Ozarks
El Dorado Springs	Cedar	West Central
Elsberry	Lincoln	St. Charles-Lincoln
Everton	Jackson	Jackson
Excelsior Springs	Clay	Clay

F

Farmington	St. Francois	Mineral Area
Fayette	Howard	Howard
Fenton	St. Louis	St. Louis Metropolitan
Ferguson	St. Louis	St. Louis Metropolitan
Festus	Jefferson	Jefferson
Flat River	St. Francois	Mineral Area
Florissant	St. Louis	St. Louis Metropolitan
Forsyth	Taney	Ozarks
Fort Leonard Wood	Pulaski	Mid-Missouri
Fredericktown	Madison	Mineral Area
Frontenac	St. Louis	St. Louis Metropolitan
Fulton	Callaway	Callaway

G

Gallatin	Daviess	Grand River
Gashland	Clay	Clay
Gerald	Franklin	Franklin-Gasconade-Warren
Gideon	New Madrid	SEMO
Gladden	St. Louis	St. Louis Metropolitan
Glasgow	Howard	Howard
Glendale	St. Louis	St. Louis Metropolitan
Grandview	Jackson	Jackson
Grant City	Worth	Northwest Missouri
Gravois Mills	Morgan	Lake of the Ozarks
Greenfield	Dade	Dallas-Hickory-Polk-Dade

H

Hamilton	Caldwell	Grand River
Hannibal	Marion	Marrion-Ralls-Shelby
Harrison	Cass	West Central
Hayti	Pemiscot	Pemiscot
Herculaneum	Jefferson	Jefferson
Hermann	Gasconade	Franklin-Gasconade-Warren
Hickman Mills	Jackson	Jackson
Higginsville	Lafayette	Lafayette-Ray
Hillsboro	Jefferson	Jefferson
Hornersville	Dunklin	Dunklin
Houston	Texas	South Central
Humansville	Polk	Dallas-Hickory-Polk-Dade
Huntsville	Randolph	Chariton-Macon-Monroe-Randolph

I

Illmo	Cape Girardeau	Cape Girardeau
Independence	Jackson	Jackson
Ironton	Iron	Mineral Area

J

Jackson	Cape Girardeau	Cape Girardeau
Jefferson Barracks	St. Louis	St. Louis Metropolitan
Jefferson City	Cole	Cole
Jennings	St. Louis	St. Louis Metropolitan
Joplin	Jasper	Jasper

K

Kahoka	Clark	Lewis-Clark-Scotland
Kansas City	Jackson	Jackson
Kennett	Dunklin	Dunklin
King City	Gentry	Northwest Missouri
Kirksville	Adair	North Central
Kirkwood	St. Louis	St. Louis Metropolitan
Knob Noster	Johnson	Johnson
Knox City	Knox	North Central
Koch	St. Louis	St. Louis Metropolitan

Town	County	Medical Society
L		
Ladue	St. Louis	St. Louis Metropolitan
Lamar	Barton	Barton
Lawson	Ray	Lafayette-Ray
Leawood (Kan.)		Jackson
Leadwood	St. Francois	Mineral Area
Lebanon	Laclede	Laclede
Lee's Summit	Jackson	Jackson
LeMay	St. Louis	St. Louis Metropolitan
Lexington	Lafayette	Lafayette-Ray
Liberty	Clay	Clay
Linn	Osage	Cole
Lockwood	Dade	Dallas-Hickory-Polk-Dade
Louisiana	Pike	Pike

M		
Macon	Macon	Chariton-Macon-Monroe-Randolph
Malden	Dunklin	Dunklin
Maplewood	St. Louis	St. Louis Metropolitan
Marceline	Linn	Grand River
Marshall	Saline	Saline
Marshfield	Webster	Webster
Martin City	Jackson	Jackson
Maryville	Nodaway	Northwest Missouri
Memphis	Scotland	Lewis-Clark-Scotland
Mexico	Audrain	Audrain
Milan	Sullivan	North Central
Minerly	Randolph	Chariton-Macon-Monroe-Randolph
Monett	Barry	Ozarks
Montgomery City	Montgomery	Montgomery
Morehouse	New Madrid	SEMO
Mound City	Holt	Northwest Missouri
Mountain Grove	Wright	South Central
Mountain View	Howell	South Central
Mount Vernon	Lawrence	Ozarks

N		
Neosho	Newton	Ozarks
Nevada	Vernon	West Central
New Florence	Montgomery	Montgomery
New Haven	Franklin	Franklin-Gasconade-Warren
New London	Ralls	Marion-Ralls-Shelby
New Madrid	New Madrid	SEMO
Normandy	St. Louis	St. Louis Metropolitan
North Kansas City	Clay	Clay

O		
Oak Grove	Jackson	Jackson
Odesa	Lafayette	Lafayette-Ray
O'Fallon	St. Charles	St. Charles-Lincoln
Olivet	St. Louis	St. Louis Metropolitan
Osceola	St. Clair	West Central
Overland	St. Louis	St. Louis Metropolitan
Owensville	Gasconade	Franklin-Gasconade-Warren
Ozark	Christian	Ozarks

P		
Pacific	Franklin	Franklin-Gasconade-Warren
Palmyra	Marion	Marion-Ralls-Shelby
Paris	Monroe	Chariton-Macon-Monroe-Randolph
Parkville	Platte	Platte
Parma	New Madrid	SEMO
Pattonsburg	Daviess	Grand River
Pattonville	St. Louis	St. Louis Metropolitan
Perryville	Perry	Perry-Ste. Genevieve
Piedmont	Wayne	Butler-Wayne-Ripley-Carter
Pilot Knob	Iron	Mineral Area
Pine Lawn	St. Louis	St. Louis Metropolitan
Platte City	Platte	Platte
Plattsburg	Clinton	Clinton
Pleasant Hill	Cass	West Central
Poplar Bluff	Butler	Butler-Wayne-Ripley-Carter
Portageville	New Madrid	SEMO
Potosi	Washington	Mineral Area

Town	County	Medical Society
Prairie Village (Kan.)		Jackson
Princeton	Mercer	Grand River
R		
Raytown	Jackson	Jackson
Reeds Spring	Stone	Ozarks
Republic	Greened	Greene
Rich Hill	Bates	West Central
Richmond	Ray	Lafayette-Ray
Richmond Heights	St. Louis	St. Louis Metropolitan
Rivermines	St. Francois	Mineral Area
Robertson	St. Louis	St. Louis Metropolitan
Rock Hill	St. Louis	St. Louis Metropolitan
Rockport	Atchison	Northwest Missouri
Rogersville	Webster	Webster
Rolla	Phelps	Mid-Missouri

S		
St. Ann	St. Louis	St. Louis Metropolitan
St. Charles	St. Charles	St. Charles-Lincoln
St. Clair	Franklin	Franklin-Gasconade-Warren
Ste. Genevieve	Ste. Genevieve	Perry-Ste. Genevieve
St. James	Phelps	Mid-Missouri
St. Joseph	Buchanan	Buchanan
St. Louis	St. Louis	St. Louis Metropolitan
Salem	Dent	Mid-Missouri
Salisbury	Chariton	Chariton-Marion-Monroe-Randolph
Sappington	St. Louis	St. Louis Metropolitan
Sarcoxi	Jasper	Jasper
Savannah	Andrew	Andrew
Sedalia	Pettis	Pettis
Shawnee Mission (Kan.)		Jackson
Shelbina	Shelby	Marion-Ralls-Shelby
Shelbyville	Shelby	Marion-Ralls-Shelby
Shrewsbury	St. Louis	St. Louis Metropolitan
Sikeston	Scott	SEMO
Slater	Saline	Saline
Smithton	Pettis	Pettis
Smithville	Clay	Clay
Springfield	Greene	Greene
Stanberry	Gentry	Northwest Missouri
Steele	Pemiscot	Pemiscot
Steelville	Crawford	Mid-Missouri
Stockton	Cedar	West Central
Stafford	Greene	Greene
Sullivan	Franklin	Franklin-Gasconade-Warren
Sweet Springs	Saline	Saline

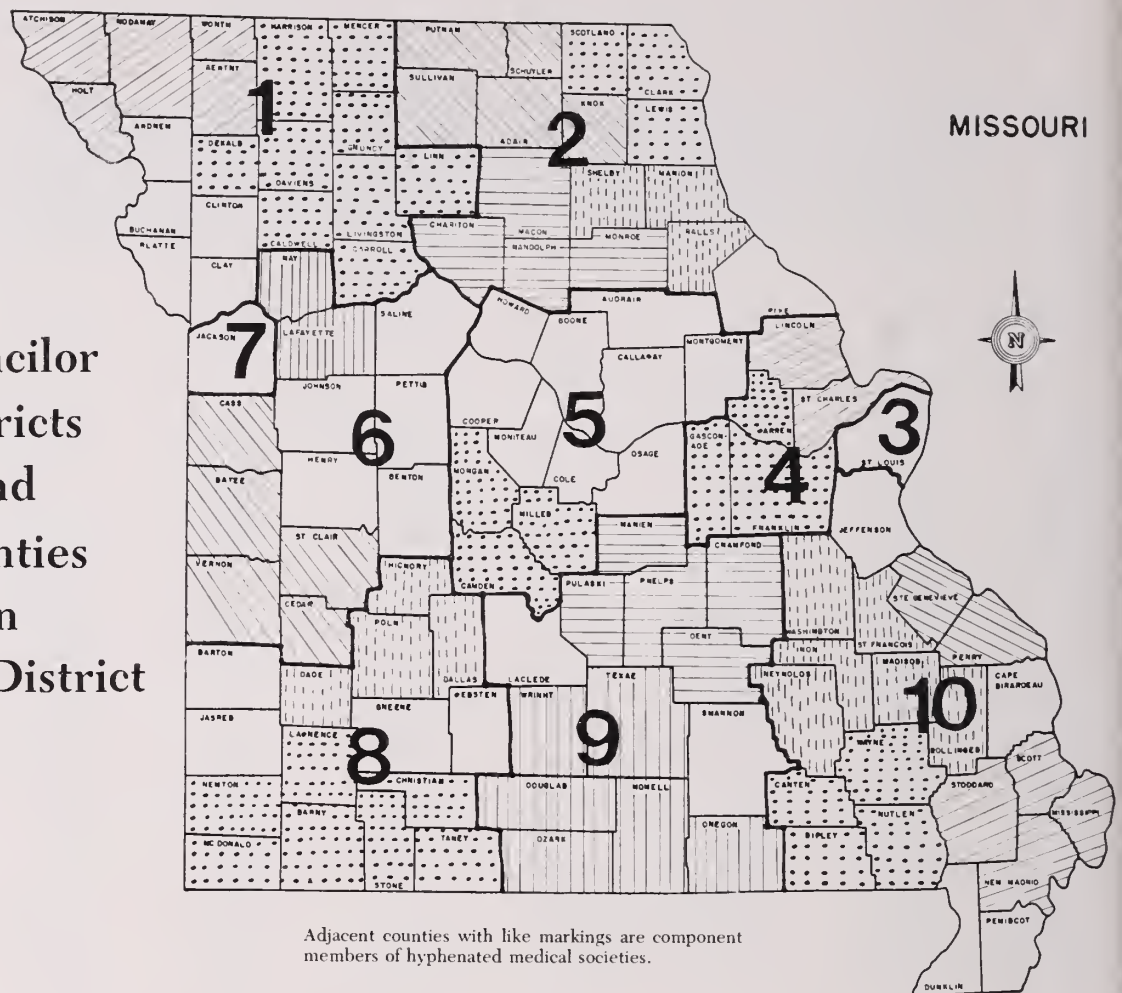
T		
Tarkio	Atchison	Northwest Missouri
Thayer	Oregon	South Central
Trenton	Grundy	Grand River
Troy	Lincoln	St. Charles-Lincoln

U		
Union	Franklin	Franklin-Gasconade-Warren
University City	St. Louis	St. Louis Metropolitan

V		
Valley Park	St. Louis	St. Louis Metropolitan
Vandalia	Audrain	Audrain
Versailles	Morgan	Lake of the Ozarks
Vienna	Maries	Cole

W		
Warrensburg	Johnson	Johnson
Warrenton	Warren	Franklin-Gasconade-Warren
Washington	Franklin	Franklin-Gasconade-Warren
Waverly	Lafayette	Lafayette-Ray
Waynesville	Pulaski	Mid-Missouri
Webb City	Jasper	Jasper
Webster Groves	St. Louis	St. Louis Metropolitan
Wellsville	Montgomery	Montgomery
Wentzville	St. Charles	St. Charles-Lincoln
West Plains	Howell	South Central
Willard	Greene	Greene
Willow Springs	Howell	South Central
Windsor	Henry	Henry
Winston	Daviess	Grand River

Councilor Districts and Counties in Each District



Adjacent counties with like markings are component members of hyphenated medical societies.

DISTRICT	COUNCILOR	COUNTIES
FIRST	Richard C. Hedges, M.D., N. Kansas City	Andrew, Atchison, Buchanan, Caldwell, Carroll, Clay, Clinton, Daviess, DeKalb, Gentry, Grundy, Harrison, Holt, Linn, Livingston, Mercer, Nodaway, Platte and Worth
SECOND	John H. Walterscheid, M.D., Hannibal	Adair, Chariton, Clark, Knox, Lewis, Macon, Marion, Monroe, Pike, Putnam, Ralls, Randolph, Schuyler, Scotland, Shelby and Sullivan
THIRD	Thomas J. Cooper, M.D., St. Louis Richard H. Fallon, M.D., St. Louis James M. Stokes, M.D., St. Louis J. Otto Lottes, M.D., St. Louis Frederick D. Peterson, M.D., St. Louis	St. Louis Metropolitan
FOURTH	Paul H. Rother, M.D., St. Charles	Franklin, Gasconade, Lincoln, St. Charles and Warren
FIFTH	John I. Matthews, M.D., Jefferson City H. Peter Ekern, M.D., Mexico	Audrain, Boone, Callaway, Camden, Cole, Cooper, Howard, Miller, Moniteau, Montgomery, Morgan and Osage*
SIXTH	R. John Torontow, M.D., Nevada	Bates, Benton,* Cass, Cedar, Henry, Johnson, Lafayette, Pettis, Ray, St. Clair, Saline and Vernon
SEVENTH	Irving H. Clark, M.D., Kansas City Donald McIntosh, M.D., Kansas City Ronald A. Youmans, M.D., Kansas City	Jackson
EIGHTH	Walter A. German, M.D., Springfield Marvin A. Singleton, M.D., Joplin	Barry, Barton, Christian, Dade, Dallas, Greene, Hickory, Jasper, Lawrence, McDonald, Newton, Polk, Stone, Taney and Webster
NINTH	Jack Wiles, M.D., West Plains	Crawford, Dent, Douglas, Howell, Laclede, Maries, Oregon, Ozark, Phelps, Pulaski, Shannon,* Texas and Wright
TENTH	George H. Ladyman, M.D., Poplar Bluff	Bollinger, Butler, Cape Girardeau, Carter, Dunklin, Iron, Jefferson, Madison, Mississippi, New Madrid, Pemiscot, Perry, Reynolds, Ripley, St. Francois, Ste. Genevieve, Scott, Stoddard, Washington and Wayne

* Counties with no medical organization.

List of Designated Specialty Codes

The following specialties, including General Practice, are recognized by the American Medical Association.

AM	Aerospace Medicine	FOP	Pathology, Forensic
A	Allergy	PD	Pediatrics
AN	Anesthesiology	PDA	Pediatrics, Allergy
BE	Broncho-Esophagology	PDC	Pediatrics, Cardiology
CD	Cardiovascular Diseases	PA	Pharmacology, Clinical
D	Dermatology	PM	Physical Medicine and Rehabilitation
DIA	Diabetes	P	Psychiatry
EM	Emergency Medicine	CHP	Psychiatry, Child
END	Endocrinology	PYA	Psychoanalysis
FP	Family Practice	PYM	Psychosomatic Medicine
GE	Gastroenterology	PH	Public Health
GP	General Practice	PUD	Pulmonary Diseases
GPM	General Preventive Medicine	R	Radiology
GER	Geriatrics	DR	Radiology, Diagnostic
GYN	Gynecology	PDR	Radiology, Pediatric
HEM	Hematology	TR	Radiology, Therapeutic
HYP	Hypnosis	RHU	Rheumatology
IG	Immunology	RHI	Rhinology
ID	Infectious Diseases	ABS	Surgery, Abdominal
IM	Internal Medicine	CDS	Surgery, Cardiovascular
LAR	Laryngology	CRS	Surgery, Colon and Rectal
LM	Legal Medicine	GS	Surgery, General
ND	Neoplastic Diseases	HS	Surgery, Hand
NEP	Nephrology	HNS	Surgery, Head and Neck
N	Neurology	NS	Surgery, Neurological
CHN	Neurology, Child	ORS	Surgery, Orthopedic
NA	Neuropathology	PDS	Surgery, Pediatric
NM	Nuclear Medicine	PS	Surgery, Plastic
NTR	Nutrition	TS	Surgery, Thoracic
OBS	Obstetrics	TRS	Surgery, Traumatic
OBG	Obstetrics and Gynecology	U	Surgery, Urological
OM	Occupational Medicine		
ON	Oncology		
OPH	Ophthalmology		
OT	Otology		
OTO	Otorhinolaryngology		
PTH	Pathology		
CLP	Pathology, Clinical		

In addition to the above specialties, the following designation is also used:

OS Other, i.e., physician designated a specialty other than those appearing above.

Remember These Dates!

The Missouri State Medical Association

123rd ANNUAL SESSION

will be held on

APRIL 9-12, 1981

Chase-Park Plaza Hotel

St. Louis

Alphabetical Roster of Members

(The alphabetical list of members includes the name and number of each member's component society.)

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AACH, RICHARD D ST. LOUIS METROP.	190	AHLER, GEO H ST. LOUIS METROP.	190	ALLEN, WM E ST. LOUIS METROP.	190
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ABADA, ROLAND ST. LOUIS METROP.	190	AHMAD, NASEER ST. LOUIS METROP.	190	ALMOUIST, L A JACKSON	098
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AGASINO, ARMELA M ST. LOUIS METROP.	190	ALLEN, JAMES H ST. LOUIS METROP.	190	*ANDREWS, RICHARD C JACKSON	098
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ARIAS, FERNANOO ST. LOUIS METROP.	190	AVIOLI, LOUIS V ST. LOUIS METROP.	190	BANGASH, JAVED I C-M-M-R	046
ARMS, ARNOLO V JACKSON	098	AYATA, SEDAT M ST. LOUIS METROP.	190	BANKUTI, FERENC JACKSON	098
ARMS, RICHARO A JACKSON	098	AYER, ANGELA G ST. LOUIS METROP.	190	BANTON, MILAGROS T ST. LOUIS METROP.	190
ARMSTRONG, JAY H CLAY	050	AYKENT, YAVUZ ST. LOUIS METROP.	190	BANTON, THOMAS J ST. LOUIS METROP.	190
ARNESON, AXEL N ST. LOUIS METROP.	190	AYLWARD, HOWARD J ST. LOUIS METROP.	190	BANTON, WM C ST. LOUIS METROP.	190
ARNEY, WM G ST. LOUIS METROP.	190	AYLWARD, HOWARD J ST. LOUIS METROP.	190	BARBEE, CHAS W BOONE	026
ARNOLD, HERBERT M BARTON	018	AYRES, STEPHEN M ST. LOUIS METROP.	190	BARBERO, GIULIO J BOONE	026
ARNOLD, JAMES T JASPER	102	AYVAZIAN, VATCHE H ST. LOUIS METROP.	190	BARBOUR, MARVIN R B-W-R-C	034
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ARST, HERBERT E CLAY	050	BAGWE, LATA R ST. LOUIS METROP.	190	BARNES, SETH S CAPE GIRARDEAU	042
ARTHUR, J B BOONE	026	BAGWE, RANJIT M ST. CHARLES-LINCOLN	126	BARNETT, OANIEL K JACKSON	098
ARTHUR, GERALO L BOONE	026	BAHL, OM P ST. LOUIS METROP.	190	BARNETT, FLOYO A C-M-M-R	046
ARUNSKI, OAVIO L ST. LOUIS METROP.	190	BAHN, CHAS F CAPE GIRARDEAU	042	BARNETT, GORON P JACKSON	098
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ASHCRAFT, KEITH W JACKSON	098	BAILEY, WM H ST. LOUIS METROP.	190	BARRETT, SCOTT R ST. LOUIS METROP.	190
ASHER, A G JACKSON	098	BAIRD, KEIM L ST. CHARLES-LINCOLN	126	BARRETT, SCOTT R ST. LOUIS METROP.	190
ASHER, IRVING M BDONE	026	BAKER, ALBERT S BOONE	026	BARROW, JACK ST. LOUIS METROP.	190
ASHER, KENNETT CAPE GIRAROEAU	042	BAKER, OONALD L FRANKLIN-GASCONADE-W	074	BARRY, WM B JACKSON	098
ASHLEY, HUGH V CAPE GIRAROEAU	042	BAKER, GARY E FRANKLIN-GASCONADE-W	074	BARTELL, MICHAEL F.L. ST. LOUIS METROP.	190
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* Doctor of Osteopathy

BASS, BARRY J JACKSON	098	BELDEN, EDGAR A COLE	058	BETTINGER, IRENE E JACKSON	098
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BAUER, SPOMENKO ST. LOUIS METROP.	190	BENNETT, JOHN ST. LOUIS METROP.	190	BIDWELL, ROBT E JACKSON	098
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BEATO, DAVID L ST. LOUIS METROP.	190	BERG, LEONARD ST. LOUIS METROP.	190	BIRCHER, JOHN L ST. LOUIS METROP.	190
BEATTY, EUGENE C JACKSON	098	BERG, RALPH ST. LOUIS METROP.	190	BIRD, H W ST. LOUIS METROP.	190
BEATTY, NINA D JACKSON	098	BERGER, EDWARD J ST. LOUIS METROP.	190	BIRD, WM J JASPER	102
BEATY, WM R ST. LOUIS METROP.	190	BERGMAN, HUGO F ST. LOUIS METROP.	190	BIRENBAUM, AARON ST. LOUIS METROP.	190
BEAUCHAMP, GARY D JACKSON	098	BERGMANN, DWAYNE L ST. LOUIS METROP.	190	BIRGE, CLIFFORD A ST. LOUIS METROP.	190
BECK, CALVIN E JACKSON	098	BERGMANN, JOHN F ST. LOUIS METROP.	190	BIRKBY, WM F BOONE	026
BECK, MARCUS R BOONE	026	BERGMANN, MARTIN ST. LOUIS METROP.	190	BIRSNER, FRANK H JASPER	102
BECK, PAUL M BUCHANAN	030	BERGMANN, VICTOR H JACKSON	098	BISHOP, ARTHUR F ST. LOUIS METROP.	190
BECKER, BERNARD ST. LOUIS METROP.	190	BERGNER, GRACE E ST. LOUIS METROP.	190	BISHOP, MARION D ST. LOUIS METROP.	190
BECKER, EDWARD J ST. LOUIS METROP.	190	BERLAND, HARRY I ST. LOUIS METROP.	190	BISNO, DANL ST. LOUIS METROP.	190
BECKER, RICHARD R JACKSON	098	BERLIN, ROGER JACKSON	098	BIZEK, JOS L OZARKS	166
BECKER, ROBT L ST. LOUIS METROP.	190	BERMAN, WM ST. LOUIS METROP.	190	BLACK, DON A JACKSON	098
BECKER, ROLFE A JACKSON	098	BERNABE, FLORINIO H ST. LOUIS METROP.	190	BLACK, EUGENE C JACKSON	098
BECKER, STANLEY C ST. LOUIS METROP.	190	BERNABE, OPELIA M ST. LOUIS METROP.	190	BLACK, JOSEPH T ST. LOUIS METROP.	190
BECKETTE, EDMUND ST. LOUIS METROP.	190	BERNARD, JAMES W PEMISCOT	170	BLACK, ROSS R JACKSON	098
BECKMAN, DONALD E ST. LOUIS METROP.	190	BERNDSEN, GERARD H ST. LOUIS METROP.	190	BLACK, SAML P BOONE	026
BEDWINEK, JOHN ST. LOUIS METROP.	190	BERNEY, FRANCIS J BUCHANAN	030	BLACK, THOMAS C JACKSON	098
BEEKS, JOHN W JACKSON	098	BERNI, ANTHONY A ST. LOUIS METROP.	190	BLACKMAN, PATRICIA A ST. LOUIS METROP.	190
BEHBAHANI, PARVIZ M ST. LOUIS METROP.	190	BERNSTEIN, AARON M ST. LOUIS METROP.	190	BLACKWELL, CHAS W BOONE	026
BEHELER, EDWARD M BUCHANAN	030	BERRY, JOHN W ST. LOUIS METROP.	190	BLADES, ROSS D GREENE COUNTY	082
BEHREND, STEVEN H JACKSON	098	BERRY, MAXWELL G JACKSON	098	BLADOW, TERRENCE C JASPER	102
BEHRENS, DONALD T ST. LOUIS METROP.	190	BERRY, PAUL T GREENE COUNTY	082	BLAIR, JOHN D ST. LOUIS METROP.	190
BEHRENS, GERALD L ST. LOUIS METROP.	190	BERWALD, DAVID M ST. LOUIS METROP.	190	BLAIR, OLGA M ST. LOUIS METROP.	190
BEIDLE, RAYMOND J ST. LOUIS METROP.	190	BERWALD, IRVIN I ST. LOUIS METROP.	190	BLAIR, VILRAY P ST. LOUIS METROP.	190
BEISNER, DONALD H GREENE COUNTY	082	BEST, ROBT 8 LAFAYETTE-RAY	118	BLALOCK, ROBT W SALINE	198

BLANO, HAROLD E BOONE	026	BORJA, EGBERT R GREENE COUNTY	082	BRAUFMAN, HARVEY S ST. LOUIS METROP.	190
BLANK, MICHAEL K JEFFERSON	106	BOROWSKY, BENJ A ST. LOUIS METROP.	190	BRAUN, ALAN L COLE	058
BLANKENSHIP, DALE M CAPE GIRARDEAU	042	BORROMEO, CARLOS J M-R-S	130	BRAUN, CHARLES R JACKSON	098
BLANKENSHIP, GEO W OZARKS	166	BORSUK, GREGORY M JACKSON	098	BRAUN, WILLIAM J JACKSON	098
BLANTON, JOS C SEMO	202	BORTNICK, ARTHUR R ST. LOUIS METROP.	190	BRAVERMAN, ABE E JACKSON	098
BLASKIEWICZ, ROBERT J ST. LOUIS METROP.	190	BORTNICK, EUGENE JACKSON	098	BRAZOS, JOHN C PETTIS	178
BLATH, RICHARD A ST. LOUIS METROP.	190	BOSCHE, ALFRED J ST. LOUIS METROP.	190	BREGANT, ROBT E COLE	058
BLEISCH, VIRGIL R ST. LOUIS METROP.	190	BOTWIN, ARNOLD E JACKSON	098	BREMER, RITA F ST. LOUIS METROP.	190
BLESSING, LARRY NORTHWEST	158	BOUHASIN, JOHN D ST. LOUIS METROP.	190	BREMSE, HARRY L ST. LOUIS METROP.	190
BLIM, RICHARD O JACKSON	098	BOURGEOIS, CURTIS H BOONE	026	BRENNAN, DANL J ST. LOUIS METROP.	190
BLOCK, ARNOLD S ST. LOUIS METROP.	190	BOURJOLLY, WILSON P ST. LOUIS METROP.	190	BRENNAN, GEO A ST. LOUIS METROP.	190
BLOCK, JEROME E PETTIS	178	BOURKE, THOS E ST. LOUIS METROP.	190	BRENNAN, RICAHRD J BUCHANAN	030
BLOOMBERG, GORDON R ST. LOUIS METROP.	190	BOURQUE, ADRIAN R CAPE GIRARDEAU	042	BRENNAN, ROBERT A ST. LOUIS METROP.	190
BLOUNT, LEE ST. LOUIS METROP.	190	BOVERI, JOS C ST. LOUIS METROP.	190	BRENNAN, ROBT A ST. LOUIS METROP.	190
*BLUM, MICHAEL A JACKSON	098	BOWDERN, EDWARD H ST. LOUIS METROP.	190	BRENNAN, ROBT V ST. LOUIS METROP.	190
BLYTHE, JAMES G ST. LOUIS METROP.	190	BOWE, EDWIN E COLE	058	BRENNER, PAUL A FRANKLIN-GASCONADE-W	074
BOBROW, JAMES C ST. LOUIS METROP.	190	BOWEN, STEPHEN F ST. LOUIS METROP.	190	BRENT, LANNY R GREENE COUNTY	082
BOCCARDO, HUMBERTO ST. LOUIS METROP.	190	BOWEN, WILLIAM G ST. LOUIS METROP.	190	BRERETON, ROBT L ST. LOUIS METROP.	190
BOCK, LINDA P ST. LOUIS METROP.	190	BOWER, RICHARD ST. LOUIS METROP.	190	BRESHEARS, EDWIN D CALLAWAY	038
BOCKELMAN, CLIFFORD H ST. LOUIS METROP.	190	BOWERMAN, HAROLO H ST. LOUIS METROP.	190	BRIAN, WM J GREENE COUNTY	082
BODENHAUSEN, GARY E JACKSON	098	BOWERS, JAMES E ST. LOUIS METROP.	190	BRICK, JEFFREY M JACKSON	098
BOEDEKER, JAMES P ST. LOUIS METROP.	190	BOWERSOX, WARREN A ST. LOUIS METROP.	190	BRICKER, EUGENE M ST. LOUIS METROP.	190
BOEDEKER, ROY V ST. LOUIS METROP.	190	BOWLER, LARRY D JACKSON	098	BRIELMAIER, CHARLES ST. LOUIS METROP.	190
BOGART, DOUGLAS B JACKSON	098	BOWLER, ULYSSES S JACKSON	098	BRIGHAM, DAVID W ST. LOUIS METROP.	190
BOHIGIAN, GEO M ST. LOUIS METROP.	190	BOWLES, G R ST. LOUIS METROP.	190	BRIGHT, JAMES E GREENE COUNTY	082
BOHLING, COREY A ST. LOUIS METROP.	190	BOWLES, RICHARD P CLAY	050	BRILL, JOACHIM R CLAY	050
BOHNSACK, RALPH W GRAND RIVER	078	BOWLES, WM T ST. LOUIS METROP.	190	BRIMMO, A I ST. LOUIS METROP.	190
BOLDIZAR, ALBERT G ST. LOUIS METROP.	190	BOWMAN, MELVIN C OZARKS	166	BRINKLEY, AVERY B ST. LOUIS METROP.	190
BOLDT, THOS H ST. LOUIS METROP.	190	BOWMAN, W K CAPE GIRARDEAU	042	BRION, PACELLI E ST. LOUIS METROP.	190
BOLES, C R ST. LOUIS METROP.	190	BOWNIK, THEODORE B CLAY	050	BRISCOE, JOHN R ST. LOUIS METROP.	190
BOLES, ROBERT D GREENE COUNTY	082	BOWSER, JOHN F JACKSON	098	BRISTOW, ROBT B BUCHANAN	030
BOLOINSKE, ROBT E ST. LOUIS METROP.	190	BOWSER, ROBERT L CLAY	050	BROADDUS, LOREN E GREENE COUNTY	082
BOLLOZOS, GEORGE D ST. LOUIS METROP.	190	BOYASKY, SAUL ST. LOUIS METROP.	190	BROCK, ARTHUR L JACKSON	098
BOLTON, ROBT L ST. LOUIS METROP.	190	BOYCE, JOHN M AUDRAIN	014	BRODEUR, ARMAND E ST. LOUIS METROP.	190
BONACORSI, JOHN ST. LOUIS METROP.	190	BOYD, GEO K JACKSON	098	BRODKEY, MARK J JACKSON	098
BOND, LESLIE F ST. LOUIS METROP.	190	BOYDSTON, CATHERINE O LAFAYETTE-RAY	118	BRODY, ARNOLD G ST. LOUIS METROP.	190
BONDURANT, BRYCE H ST. LOUIS METROP.	190	BOYDSTON, WYATT W LAFAYETTE-RAY	118	BRONSON, SHAEL S ST. LOUIS METROP.	190
BONEBRAKE, ALBERT J GREENE COUNTY	082	BOYER, PETER A COLE	058	BROOK, CHARLES J JACKSON	098
BONEBRAKE, MAC D GREENE COUNTY	082	BOYER, PHILLIP A JACKSON	098	BROOKES, ROBT D ST. LOUIS METROP.	190
BONFANTI, ALBERT L ST. LOUIS METROP.	190	BOYLAN, PETER C JACKSON	098	BROOKRESON, ALTON D B-W-R-C	034
BONIFACIO, ANDRES S JEFFERSON	106	BRABY, HOWARD H JACKSON	098	BROOKS, CHARLES S BOONE	026
BONIUK, ISAAC ST. LOUIS METROP.	190	BRADFORD, JOHN F JACKSON	098	BROOKS, JOHN E GREENE COUNTY	082
BONNEY, SAML C FRANKLIN-GASCONADE-W	074	BRADLEY, J. DOUGLAS BUCHANAN	030	BROTHERS, MARY E JACKSON	098
BONSANTI, ROBT L ST. LOUIS METROP.	190	BRADLEY, RICHARD V ST. LOUIS METROP.	190	BROWN, GORONWY O ST. LOUIS METROP.	190
BOONE, DANL C CLAY	050	BRADLEY, WM W AUDRAIN	014	BROWER, CLYDE L JACKSON	098
BOONE, MARTIN H GREENE COUNTY	082	BRADSHAW, WM D BOONE	026	BROWN, ADRIAN J JACKSON	098
BOONKHAM, CHOTCHAI ST. LOUIS METROP.	190	BRADY, HARRY R ST. LOUIS METROP.	190	BROWN, BARRY D ST. LOUIS METROP.	190
BOONSHAFT, BENJE ST. LOUIS METROP.	190	BRADY, HUGH S LAFAYETTE-RAY	118	BROWN, CRAIG J BOONE	026
BOONYASAI, BOONFU MINERAL AREA	138	BRAHMACUPTA, NANTHANA CLAY	050	BROWN, DAVID W GREENE COUNTY	082
BOOTH, WM V SEMO	202	BRAMS, JACK B JACKSON	098	BROWN, ELWYN S JACKSON	098
BOPP, JON R JASPER	102	BRANCATO, DONALD H ST. LOUIS METROP.	190	BROWN, FRANCES S JACKSON	098
BORDY, MARVIN D JACKSON	098	BRAND, EARL L ST. LOUIS METROP.	190	BROWN, FREDERICK B OZARKS	166
BORELLO, DAN J JASPER	102	BRAND, STANLEY N JACKSON	098	BROWN, FREEMAN F ST. LOUIS METROP.	190
BORENSTINE, JOS JACKSON	098	BRANDON, FREDERICK M JASPER	102	BROWN, IRWIN S JACKSON	098
		BRANGLE, ROBT W ST. LOUIS METROP.	190	BROWN, JAMES M ST. LOUIS METROP.	190

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BROWN, JAMES T GREENE COUNTY	082	BURKE, ROBT J ST. LOUIS METROP.	190	CAIN, A S JACKSON	098
BROWN, JOHN J CALLAWAY	038	BURKEY, JORDAN W GREENE COUNTY	082	CAIN, ALVIN R BARTON	018
BROWN, KATHERINE S CALLAWAY	038	BURKHART, EDWARD F ST. LOUIS METROP.	190	CAJILLI, ANTONIO T ST. LOUIS METROP.	190
BROWN, MENZIE H JACKSON	098	BURLEIGH, BRUCE W JASPER	102	CALOWELL, FRED B-W-R-C	034
BROWN, MERLIN D BUCHANAN	030	BURMEISTER, RAY W ST. LOUIS METROP.	190	CALDWELL, JOHN K JACKSON	098
BROWN, ROBT S JACKSON	098	BURNS, EDWARD L ST. LOUIS METROP.	190	CALHOUN, TERRY L CLAY	050
BROWN, SCOTT S JACKSON	098	BURNS, FRANCIS J ST. LOUIS METROP.	190	CALLAGHAN, GERARD M ST. LOUIS METROP.	190
BROWN, SEYMOUR ST. LOUIS METROP.	190	BURNS, FRANCIS R M-R-S	130	CALLAHAN, DANIEL ST. LOUIS METROP.	190
BROWN, VIOLETA O JACKSON	098	BURNS, ROBERT P BOONE	026	CALLAHAN, DONALD E ST. LOUIS METROP.	190
BROWNE, JON E JACKSON	098	BURNS, THOS W BOONE	026	CALLAHAN, JOS D ST. LOUIS METROP.	190
BROWNING, RONALD A JASPER	102	BURNSIDE, CHAS R ST. LOUIS METROP.	190	CALLAWAY, GUY D GREENE COUNTY	082
BROWNSBERGER, ROBT H WEST CENTRAL	214	BURR, DONALD C ST. LOUIS METROP.	190	CALLEN, KENNETH E BOONE	026
BROYLES, WATKINS A GRAND RIVER	078	BURRIS, GARRETT C ST. LOUIS METROP.	190	CALLIHAN, CHARLES F SOUTH CENTRAL	206
BRUCE, HELEN M ST. LOUIS METROP.	190	BURROUGHS, NATHAN D CLAY	050	CALMAN, CARL H ST. LOUIS METROP.	190
BRUCE, LEO A SEMO	202	BURRY, VIRGIL F JACKSON	098	CALODNEY, MARTIN M ST. LOUIS METROP.	190
BRUKARDT, DIANE T BOONE	026	BURST, DONALD O ST. LOUIS METROP.	190	CALOVICH, EMERY R JACKSON	098
BRUMM, LAWRENCE W JACKSON	098	BURSTEIN, ROBT ST. LOUIS METROP.	190	CAMACHO, HOMERO JACKSON	098
BRUNER, CLAUDE R BOONE	026	BURTON, OALE F M-R-S	130	CAMEL, H M ST. LOUIS METROP.	190
BRUNER, ROBT E JACKSON	098	BUSBY, WM E COLE	058	CAMP, RICHARD V B-W-R-C	034
BRUNS, KENNETH ST. LOUIS METROP.	190	BUSCH, ANTHONY K ST. LOUIS METROP.	190	CAMPBELL, ALBERT J PETTIS	178
BRUNWORTH, DAVID FRANKLIN-GASCONADE-W	074	BUSIEK, ERWIN F GREENE COUNTY	082	CAMPBELL, ANN E JACKSON	098
BRYAN, JAMES H ST. LOUIS METROP.	190	BUSIEK, PAUL J GREENE COUNTY	082	CAMPBELL, DANIEL C OZARKS	166
BRYAN, WM H JACKSON	098	BUSIEK, URBAN J GREENE COUNTY	082	CAMPBELL, EDWARD D CAPE GIRARDEAU	042
BRYAN, WM T ST. LOUIS METROP.	190	BUSSE, PAUL ST. LOUIS METROP.	190	CAMPBELL, FREDERICK B JACKSON	098
BRYANT, SYDNEY L BUCHANAN	030	BUSSMANN, DONALD W ST. LOUIS METROP.	190	CAMPBELL, JAMES E C-M-M-R	046
BRYANT, T J JACKSON	098	BUSSMANN, DONALD W GREENE COUNTY	082	CAMPBELL, JAMES W SEMO	202
BUBEN, ROBT W M-R-S	130	BUSSMANN, YVONNE C GREENE COUNTY	082	CAMPBELL, JOHN G JACKSON	098
BUCHANAN, BARBARA N JACKSON	098	BUSTOS, JONAS G JACKSON	098	CAMPOS, FRANCISCO J ST. LOUIS METROP.	190
BUCHER, WILLIAM C BOONE	026	BUTCHER, HARVEY R ST. LOUIS METROP.	190	CANAAN, SAML A ST. LOUIS METROP.	190
BUCHWACH, KENNETH A JACKSON	098	BUTCHER, ROBT W JACKSON	098	CANCELADA, JUAN V MINERAL AREA	138
*BUCK, FREDERICK A CLAY	050	BUTLER, CHARLES F GREENE COUNTY	082	CANENT, RAMON V JACKSON	098
BUCKLEY, PATRICK J ST. LOUIS METROP.	190	BUTLER, ELZA F BUCHANAN	030	CANLAS, ARSENIO L ST. LOUIS METROP.	190
BUCKNER, ROBT C JACKSON	098	BUTNER, MICHAEL R SALINE	198	CANLAS, EMILIO M B-W-R-C	034
BUCY, JAMES G ST. LOUIS METROP.	190	BUTSCH, RICHARD H ST. LOUIS METROP.	190	CANLAS, MARIO P GREENE COUNTY	082
BUDD, JOHN J ST. LOUIS METROP.	190	BUTT, ATTA U JACKSON	098	CANNON, EDWARD M ST. LOUIS METROP.	190
BUDKE, HAROLD A JACKSON	098	BUTT, JAMES H BOONE	026	CANOV, LOLITA M BOONE	026
BUEHLER, CARL T LAKE OF THE OZARKS	120	BUTTERWORTH, NELSON S JACKSON	098	CANOV, NESTOR R BOONE	026
BUETTNER, JOHN B ST. LOUIS METROP.	190	BUTTS, JAMES D MIO-MISSOURI	182	CANTOR, HARVEY E ST. LOUIS METROP.	190
BUHLER, VICTOR B JACKSON	098	BYARS, STEVEN R JACKSON	098	*CANTOR, SOL F ST. LOUIS METROP.	190
BUIE, BRUCE R JACKSON	098	BYER, JOHN A BOONE	026	CANTRELL, OCH T WEST CENTRAL	214
BUKSTEIN, MICHAEL J M-R-S	130	BYLAND, BENJ F NORTHWEST	158	CANTY, EUGENE J ST. CHARLES-LINCOLN	126
BUMGARNER, JAMES E BOONE	026	BYLAND, SAML J MONTGOMERY	146	CAPAPAS-WAXELMAN, L R ST. LOUIS METROP.	190
BUMGARNER, ROGER W BOONE	026	BYNUM, WM R BOONE	026	CAPLIN, DAVID A ST. LOUIS METROP.	190
BUNTING, WILLISTON P JACKSON	098	BYRNE, PAUL A ST. LOUIS METROP.	190	CAPPS, EUGENE C JACKSON	098
BURCH, JOHN E JASPER	102	BYRUM, FRITZ A ST. LOUIS METROP.	190	CARDENAL, JORGE JACKSON	098
BURCH, PHILLIP M ST. LOUIS METROP.	190	CABANAS, JUSTO J JACKSON	098	CARDENAS, JUAN O ST. LOUIS METROP.	190
BURCHAM, TOM R CAPE GIRARDEAU	042	CABBABE, EDMOND B ST. LOUIS METROP.	190	CARLETON, CHAS E MINERAL AREA	138
BURCHARO, LUKE L ST. LOUIS METROP.	190	CABONCE, AUGUST L ST. LOUIS METROP.	190	CARLI, ALEXANDER FRANKLIN-GASCONADE-W	074
BURDE, RONALD M ST. LOUIS METROP.	190	CABRAL, GALILEU ST. LOUIS METROP.	190	CARLIN, ALBERT L NORTHWEST	158
BURDGE, ROBERT E ST. LOUIS METROP.	190	CABRERA, TOMAS V ST. CHARLES-LINCOLN	126	CARLIN, M R ST. LOUIS METROP.	190
BURDICK, THERESA A ST. LOUIS METROP.	190	CACIOLO, CARLO P ST. LOUIS METROP.	190	CARLS, GARRY L ST. LOUIS METROP.	190
BURFORD, EDWIN K CAPE GIRARDEAU	042	CACIOLO, CARLO P ST. LOUIS METROP.	190	CARLSON, ARNE E ST. LOUIS METROP.	190
BURGESS, DEAN ST. LOUIS METROP.	190	CACIOLO, JOS E ST. LOUIS METROP.	190	CARLSON, ELMER C B-W-R-C	034
BURK, EMMETT K CLAY	050	CADICE, JOHN B ST. LOUIS METROP.	190	CARLSON, HJALMAR E JACKSON	098
		CAFFREY, RAYMOND J JACKSON	098	CARLSON, JOHN S JACKSON	098

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CARLTON, LYNN N GREENE COUNTY	082	CERZA, ROBERT F BUCHANAN	030	CHIU, TAI-MAO ST. LOUIS METROP.	190
CARMICHAEL, KIM A ST. LOUIS METROP.	190	CHACKO, RUTH ST. LOUIS METROP.	190	CHO, KYU S ST. LOUIS METROP.	190
CARMODY, JOHN P ST. LOUIS METROP.	190	CHADARATANA, PHADUNG ST. LOUIS METROP.	190	CHOI, SAE R ST. LOUIS METROP.	190
CARMONA, GILBERTO V ST. LOUIS METROP.	190	CHAKROBORTY, H ST. LOUIS METROP.	190	CHOU, YEN PING ST. LOUIS METROP.	190
CARNAHAN, CHAS E BOONE	026	CHALKLEY, JUDSON I BOONE	026	CHOUDHURY, M H SOUTH CENTRAL	206
CARNELL, BILLY M D-H-P-D	066	CHALLENGER, WM A BUCHANAN	030	CHOUNARD, MICHAEL P SEMO	202
CARNES, VICTOR M JASPER	102	CHALLONER, DAVID R ST. LOUIS METROP.	190	CHOWDHURY, DIPAK JACKSON	098
CAROLLA, ROBERT L GREENE COUNTY	082	CHAMNESS, JAMES T ST. LOUIS METROP.	190	CHRIST, MARTIN H BUCHANAN	030
CARONONGAN, CARMELITO M ST. LOUIS METROP.	190	CHAND, NAZAR B-W-R-C	034	CHRISTENSEN, HAROLD L GREENE COUNTY	082
CARPENTER, GEO T BUCHANAN	030	CHANDLER, ROBT A JACKSON	098	CHRISTENSEN, SHANE R JACKSON	098
CARPENTER, JAMES L ST. CHARLES-LINCOLN	126	CHANDRA, MAHESH JACKSON	098	CHRISTIANSON, CHAS S OZARKS	166
CARPENTER, WALLACE NORTHWEST	158	CHANDRAMOHAN, NANJAPPA FRANKLIN-GASCONADE-W	074	CHRISTY, JOHN P B-W-R-C	034
CARR, DAVID A BUCHANAN	030	CHANG, CHIL K BOONE	026	CHRISTY, RAYMOND A GREENE COUNTY	082
CARR, PHILLIP W GREENE COUNTY	082	CHANG, DAVID Y JACKSON	098	CHUA, STEVEN ST. LOUIS METROP.	190
CARRANZA, MAURO J ST. LOUIS METROP.	190	CHAPEL, JAMES L BOONE	026	CHUNG, KAP-EUN ST. LOUIS METROP.	190
CARRELL, ROBERT P GREENE COUNTY	082	CHAPLIN, HUGH ST. LOUIS METROP.	190	CHUNG, RICHARD T JACKSON	098
CARRERA, MARIO ST. LOUIS METROP.	190	CHAPMAN, CHARLES L BOONE	026	CHUNG, TAI-YONG B-W-R-C	034
CARRIER, JOHN A ST. LOUIS METROP.	190	CHAPMAN, DAVID W JACKSON	098	CHURCHILL, STEPHEN W JACKSON	098
CARRINGTON, HOWARD W LACLEDE	115	CHAPMAN, JEAN A CAPE GIRARDEAU	042	CHUSAK, RICHARD B ST. LOUIS METROP.	190
CARROLL, GEO A ST. LOUIS METROP.	190	CHARLES, BENJ H ST. LOUIS METROP.	190	CHUTE, WM D C-M-M-R	046
CARROLL, GRAYSON L ST. LOUIS METROP.	190	CHARLES, FRANCOIS ST. LOUIS METROP.	190	CIAPCIAK, STANLEY J ST. LOUIS METROP.	190
CARROLL, PERCY J ST. LOUIS METROP.	190	CHARLES, NALLATHAMAI JEFFERSON	106	CIDIS, GERHARD W JACKSON	098
CARROLL, THOS W BARTON	018	CHARLES, PADMINI JEFFERSON	106	CLARK, DAVID J CAPE GIRARDEAU	042
CARRON, JOSEPH JEFFERSON	106	CHARNAS, RAYMOND M ST. LOUIS METROP.	190	CLARK, FRANK I JASPER	102
CARRON, OSCAR A PERRY-STE. GENEVIEVE	174	CHASE, NED B JASPER	102	CLARK, GRANVILLE E JACKSON	098
CARTER, EDWIN E ST. LOUIS METROP.	190	CHASTAIN, CHAS W MINERAL AREA	138	CLARK, IRVING H JACKSON	098
CARTER, JAMES E JACKSON	098	CHATKUP, SUTHON CLAY	050	CLARK, KENDALL A COLE	058
CARTER, JAMES R OZARKS	166	CHAUDHARY, MOHAMMAD A JACKSON	098	CLARK, RICHARD E ST. LOUIS METROP.	190
CARTER, JAMES S BOONE	026	CHAUDHURI, SUDHA T JACKSON	098	CLARKE, JOHN W JACKSON	098
CARTER, JOHN F ST. LOUIS METROP.	190	CHAUDHURI, TAPAN K JACKSON	098	CLARKE, MICHAEL J GREENE COUNTY	082
CARTER, RONALD D BOONE	026	CHAVALA, SUDARSAN ST. LOUIS METROP.	190	CLARKE, MICHAEL S GREENE COUNTY	082
CARUSO, ALFRED A JACKSON	098	CHAVES, RUTILLO M ST. LOUIS METROP.	190	CLARKE, PAUL W CAPE GIRARDEAU	042
CARY, JOHN M ST. LOUIS METROP.	190	CHAVEZ, SALVADOR ST. LOUIS METROP.	190	CLARY, WM F GREENE COUNTY	082
CASE, MARY E ST. LOUIS METROP.	190	CHAYASIRISOBHON, PINYO LEWIS-CLARK-SCOTLAND	122	CLASEMAN, WILMA W ST. LOUIS METROP.	190
CASE, WM F JACKSON	098	CHEEK, CHAS W BOONE	026	CLAWSON, JAMES W GREENE COUNTY	082
CASEY, ARTHUR L ST. LOUIS METROP.	190	CHEEK, J W GREENE COUNTY	082	CLAYCOMB, GERALD K ST. LOUIS METROP.	190
CASEY, EDWIN J ST. LOUIS METROP.	190	CHEHVAL, MICHAEL J ST. LOUIS METROP.	190	CLAYTON, EDGAR L GREENE COUNTY	082
CASEY, ELIOT C ST. LOUIS METROP.	190	CHELLAPPA, DANUKODI JASPER	102	CLAYTON, JILL M ST. LOUIS METROP.	190
CASH, CHAS R DUNKLIN	070	CHEN, I-HSIUNG PERRY-STE. GENEVIEVE	174	CLENDENIN, WILLIAM W ST. LOUIS METROP.	190
CASHIER, DWIGHT CLAY	050	CHEN, JAMES Z.W. ST. LOUIS METROP.	190	CLEVER, HENRY W ST. CHARLES-LINCOLN	126
CASHMAN, JOHN W JACKSON	098	CHEN, STUART JACKSON	098	CLEVER, VICTOR G ST. CHARLES-LINCOLN	126
CASON, ELBERT H ST. LOUIS METROP.	190	CHENG, TUAN CHOU DUNKLIN	070	CLINE, DANIEL M JACKSON	098
CASTASUS, MANUEL A ST. LOUIS METROP.	190	CHERN, MOU S SOUTH CENTRAL	206	CLINE, MERLE A JACKSON	098
CASTER, PHILIP W LACLEDE	115	CHERNOFF, SELBERT G JACKSON	098	CLISHAM, JOHN F M-R-S	130
CASTILLO, ISABELO NORTHWEST	158	CHERRE, CHAS J ST. LOUIS METROP.	190	CLOTHIER, ROBT W JACKSON	098
CASTILLO, MICHAEL E CLAY	050	CHESNEY, GEO W JASPER	102	CLOUGH, CHAS A JACKSON	098
CASTRO, JUAN M ST. LOUIS METROP.	190	CHEUK, SHU-SUM ST. LOUIS METROP.	190	COBB, MILTON L ST. LOUIS METROP.	190
CATANZARO, ANTHONY F ST. LOUIS METROP.	190	CHIEFFI, MARGARET J ST. LOUIS METROP.	190	COBEN, LAWRENCE A ST. LOUIS METROP.	190
CATANZARO, FRANCIS J ST. LOUIS METROP.	190	CHILDS, DONNALEA S JACKSON	098	COBURN, DONALD F JACKSON	098
CATANZARO, FRANK J ST. LOUIS METROP.	190	CHILDS, RICHARD M JACKSON	098	COCHRAN, DONALD Q BOONE	026
CATANZARO, RUDOLPH E ST. LOUIS METROP.	190	CHILES, DAVID R CLAY	050	COCHRAN, J R CAPE GIRARDEAU	042
CATRON, DAVID O SEMO	202	CHINSKY, MURRAY ST. LOUIS METROP.	190	COCHRAN, THOS E GREENE COUNTY	082
CATTANEO, ERNEST A JACKSON	098	CHIPONGIAN, RAUL A ST. LOUIS METROP.	190	COCHRANE, JOS J JACKSON	098
CAYABYAB, PEDRO C ST. LOUIS METROP.	190	CHIRINO, OCTAVIO R ST. LOUIS METROP.	190	COCKERELL, SANFORD F JACKSON	098
CENTNER, PAUL J JACKSON	098	CHISHTI, M. ISHAQ ST. LOUIS METROP.	190	CODD, JOHN E ST. LOUIS METROP.	190

JODILLA, SOSTENES G ST. LOUIS METROP.	190	COOK, JAMES R GREENE COUNTY	082	COX, MARY E ST. LOUIS METROP.	190
COFER, THOS N GRAND RIVER	078	COOK, JERRY W CLAY	050	COX, WM A COLE	058
COFFEE, AMOS L SOUTH CENTRAL	206	COOK, MARVIN ST. LOUIS METROP.	190	COX, WM L JACKSON	098
COFFEY, RALPH R JACKSON	098	COOK, THOS B LAFAYETTE-RAY	118	COXE, WM S ST. LOUIS METROP.	190
*COHEN, DONALD L JACKSON	098	COOKSEY, JON D ST. LOUIS METROP.	190	COZART, DUANE E ST. LOUIS METROP.	190
COHEN, EDWARD ST. LOUIS METROP.	190	COOPER, BARRY R CLAY	050	COZEAN, CHARLES H CAPE GIRARDEAU	042
COHEN, FRANK ST. LOUIS METROP.	190	COOPER, CHAS W COLE	058	CRADOCK, THOMAS V ST. LOUIS METROP.	190
COHEN, HARRY B BOONE	026	COOPER, CLAUDE W GREENE COUNTY	082	CRAFT, GEORGE A CALLAWAY	038
COHEN, HARRY K JACKSON	098	COOPER, CLAUDE W SOUTH CENTRAL	206	CRAFTS, DAVID ST. LOUIS METROP.	190
COHEN, HILLARD K ST. LOUIS METROP.	190	COOPER, GARY D CLAY	050	CRAIG, ALAN G ST. LOUIS METROP.	190
COHEN, LAWRENCE S JACKSON	098	COOPER, JAMES F ST. LOUIS METROP.	190	CRAIG, HERBERT W GRAND RIVER	078
COHEN, MARVIN C JACKSON	098	COOPER, ROBT L JOHNSON	110	CRAIG, IRWIN T JASPER	102
COHEN, ROBERT S ST. LOUIS METROP.	190	COOPER, ROBT L JOHNSON	110	CRAIG, OWEN W BUCHANAN	030
COHLE, RICHARD R JASPER	102	COOPER, THEODORE ST. LOUIS METROP.	190	CRAIG, RICHARD O BUCHANAN	030
COHRS, CLARENCE C C-M-M-R	046	COOPER, THOMAS J ST. LOUIS METROP.	190	CRAIN, JAMES W OZARKS	166
COKINGTIN, LEOVIGILDO C JACKSON	098	COOPER, THOS P ST. LOUIS METROP.	190	CRALLE, ROBERT V ST. LOUIS METROP.	190
COKRHAME, JACK ST. LOUIS METROP.	190	COOPERSTOCK, MICHAEL S BOONE	026	CRANE, JOHN B FRANKLIN-GASCONADE-W	074
COLBERT, ROBT S SEMO	202	COPE, JAMES C BOONE	026	CRAWFORD, ARCHIE L JASPER	102
COLE, HARRY O ST. LOUIS METROP.	190	COPE, JOS S LAFAYETTE-RAY	118	CRAWFORD, ORAL B GREENE COUNTY	082
COLE, SHERMAN W JACKSON	098	COPP, RALPH ST. LOUIS METROP.	190	CRAWFORD, ROBT M FRANKLIN-GASCONADE-W	074
COLE, WM R PETTIS	178	COPPINGER, THOS A JACKSON	098	CRAWFORD-TROTTER, KATH J ST. LOUIS METROP.	190
COLEMAN, DONALD L ST. LOUIS METROP.	190	CORDAY, ROBT J ST. LOUIS METROP.	190	CRAYTON, BILLY G LAFAYETTE-RAY	118
*COLEMAN, MICHAEL H ST. LOUIS METROP.	190	CORDER, JAMES C ST. LOUIS METROP.	190	CREPPS, LOUIS F FRANKLIN-GASCONADE-W	074
COLEMAN, ROBT L JACKSON	098	CORDER, ROBT L BUCHANAN	030	CRESPIN, STEPHEN R ST. LOUIS METROP.	190
COLGLAZIER, MARY C JACKSON	098	CORDONNIER, JAMES K GREENE COUNTY	082	CRESPO, HORACIO T ST. LOUIS METROP.	190
COLLER, FREDERICK C GREENE COUNTY	082	CORONADO, MARIO A ST. LOUIS METROP.	190	CRESPO, REMEDIOS R ST. LOUIS METROP.	190
COLLINS, DOUGLASS D GREENE COUNTY	082	CORRIGAN, GILBERT E ST. LOUIS METROP.	190	CRIGHTON, JOHN C GREENE COUNTY	082
COLLINS, GRETCHEN D C-M-M-R	046	CORRY, FRANCIS M GREENE COUNTY	082	CRISCIONE, JAMES R ST. LOUIS METROP.	190
COLLINS, JACK R MID-MISSOURI	182	CORRY, JAMES M ST. LOUIS METROP.	190	CRISCIONE, JAMES S ST. LOUIS METROP.	190
COLLINS, JOHN W JACKSON	098	CORTNER, MARY C JACKSON	098	CRISPELL, LAWRENCE S JASPER	102
COLOM, GEO A JACKSON	098	CORVALAN, JUAN C ST. LOUIS METROP.	190	CRITCHLOW, MICHAEL E SEMO	202
COLOSI, NICHOLAS J ST. LOUIS METROP.	190	CORWIN, KENNETH D ST. LOUIS METROP.	190	CRITCHLOW, WM C SEMO	202
COLWILL, JACK M BOONE	026	COSCIA, ROBERT L GREENE COUNTY	082	CROCKETT, JAMES E JACKSON	098
COMAS, MANUEL R ST. LOUIS METROP.	190	COSTA, DOMINIC V ST. LOUIS METROP.	190	CROSS, ALBERT D GRAND RIVER	078
COMEAU, RICHARD J SEMO	202	COSTELLO, CYRIL J ST. LOUIS METROP.	190	CROSS, MARY C JACKSON	098
COMENS, PHILLIP ST. LOUIS METROP.	190	COSTELLO, JOHN B ST. LOUIS METROP.	190	CROSTHWAIT, EDWARD L GREENE COUNTY	082
COMENS, RUTH C ST. LOUIS METROP.	190	COSTELLO, JOS P ST. LOUIS METROP.	190	CROUCH, JOHN A BOONE	026
COMER, JULIAN R M-R-S	130	COSTEN, WILLIAM S ST. LOUIS METROP.	190	CROUCH, THOS T JACKSON	098
COMFORT, GEO D AUDRAIN	014	COSTRINO, JOS A ST. LOUIS METROP.	190	CROW, JIMMIE R JACKSON	098
COMMERFORD, JOHN F ST. CHARLES-LINCOLN	126	COTTER, JOHN B JACKSON	098	CROW, MARTIN L JACKSON	098
CONANT, JAMES F JEFFERSON	106	COTTEY, JOHN H AUDRAIN	014	CROWE, JOHN T CAPE GIRARDEAU	042
CONDE, GARY A JASPER	102	COTTON, THOS R JACKSON	098	CROWELL, HUGH C ST. LOUIS METROP.	190
CONE, ALFRED J ST. LOUIS METROP.	190	COUCHONNAL, GUILLERMO JACKSON	098	CROWLEY, WM J BOONE	026
CONE, WM D MID-MISSOURI	182	COULSON, FOREST H CAPE GIRARDEAU	042	CROZIER, FRANKLIN A LAFAYETTE-RAY	118
CONGER, WILLIAM R B-W-R-C	034	COULTER, JAMES W GREENE COUNTY	082	CRUZ, SERGIO G OZARKS	166
CONN, ROBT D JACKSON	098	*COURTER, GARY M LACLEDE	115	CSAKI, BELA CLAY	050
CONNELLY, MICHAEL W ST. CHARLES-LINCOLN	126	COURTER, LARRY P COLE	058	CUBILLO, ENRIQUE ST. LOUIS METROP.	190
CONNER, W. EDWIN JACKSON	098	COVA, RENO R ST. LOUIS METROP.	190	CUENTO, OBLENDO A ST. LOUIS METROP.	190
CONNORS, JOHN P ST. LOUIS METROP.	190	COVERT, RICHARD A ST. LOUIS METROP.	190	CULLEN, JOHN W JACKSON	098
CONOYER, J M ST. LOUIS METROP.	190	COWAN, GEO A JACKSON	098	CULLEY, THOMAS S BOONE	026
CONRAD, JOS A GRAND RIVER	078	COWHERD, DONALD W ST. LOUIS METROP.	190	CULLUM, ALBERT G ST. LOUIS METROP.	190
CONRAD, MARSHALL B ST. LOUIS METROP.	190	COWLES, ALAN L BOONE	026	CUNDIFF, HARRY C CAPE GIRARDEAU	042
CONRAD, RAYMOND C GREENE COUNTY	082	COX, CURTIS S COLE	058	CUNNINGHAM, D D GREENE COUNTY	082
CONVERY, PAUL B ST. LOUIS METROP.	190	COX, JOHN P BUCHANAN	030	CUNNINGHAM, EDWIN J ST. LOUIS METROP.	190
		COX, KENNETH E JACKSON	098	CUNNINGHAM, MILAMARI A BOONE	026

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CUNNINGHAM, RICHARD D GREENE COUNTY	082	DAVIS, HERBERT V JACKSON	098	DENT, GEDRGE W MINERAL AREA	138
CURNDW, RICHARD B CLAY	050	DAVIS, JACK M JACKSDN	098	DENTDN, JDHN L BOONE	026
CURRAN, M D JACKSDN	098	DAVIS, JDHN M JACKSON	098	DENTON, ROBT E CLAY	050
CURRAN, TERRENCE JACKSON	098	DAVIS, LANDIS Y LEWIS-CLARK-SCDTLAND	122	DERNONCDURT, JDHN E CLAY	050
CURRY, MICHAEL J ST. CHARLES-LINCOLN	126	DAVIS, LEONARD L AUDRAIN	014	DESAI, RAVINDRA S ST. CHARLES-LINCOLN	126
CURTIS, JACK J BDDNE	026	DAVIS, MARTIN W ST. LOUIS METROP.	190	DESHMUKH, MURLIDHAR R JACKSON	098
CURTS, CALVIN J JACKSDN	098	DAVIS, MARY A ST. LOUIS METROP.	190	DESHPANDE, V ST. LOUIS METROP.	190
CUSUMANO, JOSEPH V ST. LOUIS METROP.	190	DAVIS, SHELDDN ST. LOUIS METROP.	190	DESTOUET, JUDY ST. LOUIS METROP.	190
CUTCLIFF, DANL J JACKSDN	098	DAVIS, THOMAS N MINERAL AREA	138	DETTMER, ROBT F MINERAL AREA	138
CUTLER, GDRDN B ST. LOUIS METROP.	190	DAVIS, W B JACKSDN	098	DEUTCH, MAX ST. LOUIS METROP.	190
CUTLER, HAROLD M ST. LOUIS METROP.	190	DAVIS, WILBUR L SEMO	202	DEVINE, JDHN B ST. LOUIS METROP.	190
CUTLER, HARRY ST. LOUIS METROP.	190	DAVIS, WM E BOONE	026	DEVINE, MARK W CLAY	050
CZEBRINSKI, EDWARD W ST. LOUIS METROP.	190	DAVISSON, WALTER F COLE	058	DEVINS, GEORGE S JACKSON	098
D		DAY, CHESTER L JACKSON	098	DEW, THOS A ST. LOUIS METROP.	190
DAAKE, JOHN W ST. LOUIS METROP.	190	DAY, ROMNEY M BUCHANAN	030	DEWALD, PAUL A ST. LOUIS METROP.	190
OAAKE, JOHN W ST. LOUIS METROP.	190	DE CASTRO, EDWINO T ST. LOUIS METROP.	190	DEWEIN, EDWARD G ST. LOUIS METROP.	190
DABBS, WILBUR D OZARKS	166	DE FEO, FREDERICK G JACKSON	098	DEWOLFE, MARK JACKSON	098
DAGARTZIKAS, A K ST. LOUIS METROP.	190	DE FEO, THEODORE C JACKSON	098	DEXHEIMER, FRANK R BOONE	026
DAHM, CHAS H ST. LOUIS METROP.	190	DE GENOVA, GERARD H PERRY-STE. GENEVIEVE	174	DEXTER, JAMES D BOONE	026
DALEY, FRANK R GRAND RIVER	078	DE JESUS CARBONEL, A ST. LOUIS METROP.	190	DEXTER, JOHN K GREENE COUNTY	082
DALTON, ARTHUR R ST. LOUIS METROP.	190	DE LA TORRE, JOHN J FRANKLIN-GASCONADE-W	074	DI CECCO, CHARLES J ST. LOUIS METROP.	190
DALTON, TIMOTHY T JACKSON	098	DE LEON, ROMUALDO V ST. LOUIS METROP.	190	DI FILIPPO, EMIL A ST. CHARLES-LINCOLN	126
DAMES, RICHARD J ST. LOUIS METROP.	190	DE MOTT, JOHN D JACKSON	098	DI LEO, SENATRO W ST. LOUIS METROP.	190
DAMRON, EDWARD O ST. CHARLES-LINCOLN	126	DE MOTTE, JEANNE M LAFAYETTE-RAY	118	DI PASCO, DONALD J ST. LOUIS METROP.	190
DAMRON, OSCAR H JOHNSON	110	DE PAUM, ARTHUR P BOONE	026	DICK, EARL ST. LOUIS METROP.	190
DANOAMUDI, BABU R ST. LOUIS METROP.	190	DE SILVA, ANANDA ST. LOUIS METROP.	190	DICK, MARY M ST. LOUIS METROP.	190
DANDRIDGE, WALTER C JASPER	102	DE TAR, BURLEIGH E JASPER	102	DICKLER, DONALD J ST. LOUIS METROP.	190
DANFORTH, WM H ST. LOUIS METROP.	190	DE UNGRIA, PABLO C ST. LOUIS METROP.	190	DIEHL, ANTONI M JACKSON	098
DANGANAN, CANDIDO S ST. LOUIS METROP.	190	DE VERA, ANSON E ST. LOUIS METROP.	190	DIEHR, MAURICE A ST. LOUIS METROP.	190
DANGANAN, ELEANA Q ST. LOUIS METROP.	190	DEAN, FRANCIS D HOWARD	094	DIEMER, PETER A ST. LOUIS METROP.	190
DANIELS, JOHN S ST. LOUIS METROP.	190	DEAN, WALTER E NORTHWEST	158	DIERBERG, DALE F ST. LOUIS METROP.	190
DANIELSSON, ERNST P GREENE COUNTY	082	DEBNAM, JAMES W ST. LOUIS METROP.	190	DIERKER, HARRY D MINERAL AREA	138
DANIS, PETER G ST. LOUIS METROP.	190	DECANINI, JESUS M BUCHANAN	030	DIESTELHORST, JAMES A ST. LOUIS METROP.	190
DANIS, RICHARD K ST. LOUIS METROP.	190	DECKARD, SHELBY W GREENE COUNTY	082	DIETERICH, RUSSELL ST. CHARLES-LINCOLN	126
DANKNER, ARNOLD ST. LOUIS METROP.	190	DEEKEN, JAMES H JACKSON	098	DILLARD, BURL M ST. LOUIS METROP.	190
DARNELL, DALE E JACKSON	098	DEETHS, TONY M ST. LOUIS METROP.	190	DILLARD, ERIN M GREENE COUNTY	082
DARNELL, THOS F BOONE	026	DEHNER, JONATHAN D ST. LOUIS METROP.	190	DILLS, JOS N GREENE COUNTY	082
DAS, ARABINDA ST. LOUIS METROP.	190	DEITCHMAN, ROBT B ST. LOUIS METROP.	190	DIMOND, E G JACKSON	098
DASH, IRA ST. LOUIS METROP.	190	DEL CARMEN, JAIME J ST. LOUIS METROP.	190	DINKENS, JAMES A CAPE GIRARDEAU	042
DASH, UDAYA N ST. LOUIS METROP.	190	DEL MURO, FRANCISCO CLAY	050	DIVELEY, REX L JACKSON	098
DATTA, NARENDAR K JEFFERSON	106	DEL PIZZO, FERDINAND ST. CHARLES-LINCOLN	126	DIXON, GEO D JACKSON	098
DAUM, HAROLD F PETTIS	178	DEL ROSARIO, HORACIO O ST. LOUIS METROP.	190	DIXON, HERBERT K JASPER	102
DAUT, DONALD W AUDRAIN	014	DEL VALLE, FERNANDO ST. LOUIS METROP.	190	DIXON, JOHN R GRAND RIVER	078
DAVAULT, GEO K LAFAYETTE-RAY	118	DELANY, CLARENCE L SOUTH CENTRAL	206	DIXON, VEWISER L JACKSON	098
DAVENPORT, SANDRA L BOONE	026	DELCAU, CAREY M ST. LOUIS METROP.	190	DIZNEY, DESMION M NORTHWEST	158
DAVIDNER, MARK L JACKSON	098	DELES, VICENTE D JEFFERSON	106	DLABAL, LUKE J JACKSON	098
DAVIDSON, JOHN A ST. LOUIS METROP.	190	DELIGEORGES, JOHN CLAY	050	DLABAL, LUKE J JACKSON	098
DAVIDSON, KENORICK C JACKSON	098	DEMENT, OMAN E DUNKLIN	070	DMYTRYK, EUGENE T ST. LOUIS METROP.	190
DAVIDSON, MORRIS ST. LOUIS METROP.	190	DEMEO, ROBERT R B-W-R-C	034	DODGE, PHILIP R ST. LOUIS METROP.	190
DAVIS, C B WEST CENTRAL	214	DEMPSEY, HERBERT A JACKSON	098	DOERHOFF, ADELIA L COLE	058
DAVIS, CHARLES L ST. LOUIS METROP.	190	OENES, BELA ST. LOUIS METROP.	190	DOERHOFF, ALAN R COLE	058
DAVIS, CHAS S JASPER	102	DENK, ALAN F ST. LOUIS METROP.	190	DOERING, ROBT W JACKSON	098
DAVIS, DAVID BOONE	026	DENNER, LEE J JACKSON	098	DOISY, PHILIP P ST. LOUIS METROP.	190
DAVIS, DONALD R JACKSON	098	DENNINGHOFF, JAMES C BOONE	026	DOISY, ROBT A ST. LOUIS METROP.	190
DAVIS, GENE L ST. LOUIS METROP.	190	DENNIS, WM P MINERAL AREA	138	DOLAN, CHARLES T CLAY	050

DOLAN, JOHN T ST. LOUIS METROP.	190	DUGGAN, JOHN J ST. LOUIS METROP.	190	ECKERT, CLARENCE T ST. LOUIS METROP.	190
DOMANN, DARREL D GREENE COUNTY	082	DUGGER, DAVID E ST. LOUIS METROP.	190	EDELE, EUGENE H ST. LOUIS METROP.	190
DOMBEK, STANLEY J JACKSON	098	DUKSTEIN, WALTER G JACKSON	098	EDELMAN, ALAN H ST. LOUIS METROP.	190
DOMKE, HERBERT R CALLAWAY	038	DULING, GERALD J ST. CHARLES-LINCOLN	126	EDMONDS, ROBT W PETTIS	178
DONALDSON, ROBT C ST. LOUIS METROP.	190	DUMADAG, VIRGILIO P ST. LOUIS METROP.	190	EDWARDS, DAVID R PETTIS	178
DONATI, ROBT M ST. LOUIS METROP.	190	DUNAWAY, HOWARD A SEMO	202	EDWARDS, DONALD E CAPE GIRARDEAU	042
DONLEY, LEO F ST. LOUIS METROP.	190	DUNCAN, DAVID T ST. CHARLES-LINCOLN	126	EDWARDS, FRANCIS L OZARKS	166
DONLEY, ROBT R OZARKS	166	DUNCAN, DOUGLAS M GREENE COUNTY	082	EDWARDS, JAMES E ST. LOUIS METROP.	190
DONNELL, HAROLD E JEFFERSON	106	DUNCAN, ROBT D GREENE COUNTY	082	EDWARDS, JOS C ST. LOUIS METROP.	190
DONNELL, ROBT H JEFFERSON	106	DUNCAN, ROLIN B B-W-R-C	034	EDWARDS, THEODORE F CLAY	050
DONNELL, THOS A JEFFERSON	106	DUNCAN, WM H JACKSON	098	EDWARDS, WALDO B JEFFERSON	106
DONOHUE, CHARLES D JACKSON	098	DUNDEE, JOHN T NORTHWEST	158	EGAN, ROBT C ST. LOUIS METROP.	190
DONOVAN, JOHN F ST. LOUIS METROP.	190	DUNHAM, ROBT H CLAY	050	EGAN, THOS F ST. LOUIS METROP.	190
DONOVAN, THOS J ST. LOUIS METROP.	190	DUNLEAVY, JAMES D JACKSON	098	EGGERS, GEO W BOONE	026
DOOLEY, JOS M ST. LOUIS METROP.	190	DUNMIRE, GEO Q DUNKLIN	070	EGGLESTON, DONALD E C-M-M-R	046
DORSCH, ERVIN H JACKSON	098	DUNN, ANGUS S JACKSON	098	EGGLESTON, HARRY C ST. LOUIS METROP.	190
DORTON, ROBT K ST. LOUIS METROP.	190	DUNN, ROBERT C ST. LOUIS METROP.	190	EGGLESTON, THOS F ST. LOUIS METROP.	190
DORZAB, WILLIAM E JACKSON	098	DUNSHOE, ROBT E NORTHWEST	158	EHRlich, CARL F ST. LOUIS METROP.	190
DOSS, LARRY L BOONE	026	DUPONT, JEAN R SEMO	202	EIDELMAN, JACK R ST. LOUIS METROP.	190
DOUGHERTY, CHARLES H ST. LOUIS METROP.	190	DUREL, JUSTIN H ST. LOUIS METROP.	190	EIMER, CHAS E ST. LOUIS METROP.	190
DOWELL, GEO H ST. LOUIS METROP.	190	DURIE, ROBT H JACKSON	098	EISEMANN, GUSTAVE JACKSON	098
DOWELL, J L GREENE COUNTY	082	DURNELL, MONAFORD D JACKSON	098	EISEN, ARTHUR Z ST. LOUIS METROP.	190
DOWNNEY, JAMES W JACKSON	098	DURR, JON W ST. LOUIS METROP.	190	EISENMANN, BENJ P FRANKLIN-GASCONADE-W	074
DOWNNEY, JON P CAPE GIRARDEAU	042	DURST, EDWARD F MINERAL AREA	138	EKERN, HERMAN P AUDRAIN	014
DOYLE, CHAS R ST. LOUIS METROP.	190	DURST, HENRY CALLAWAY	038	EKLUND, ALFRED W WEST CENTRAL	214
DRACE, CHAS C ST. LOUIS METROP.	190	DUSING, REGINALD W B-W-R-C	034	EKUNNO, JOSIAH O ST. LOUIS METROP.	190
DRAKE, AVERY A MID-MISSOURI	182	DUVALL, JOSEPH M ST. LOUIS METROP.	190	ELCOCK, DEVERA M ST. LOUIS METROP.	190
DRAKE, ROY F JACKSON	098	DWORKIN, SAUL ST. LOUIS METROP.	190	ELDENBURG, DONALD O PETTIS	178
DRAKE, WM L ST. LOUIS METROP.	190	DWYER, FRANK X JACKSON	098	ELDER, DONALD G ST. LOUIS METROP.	190
DRANEY, THOS E JACKSON	098	DWYER, HUGH L JACKSON	098	ELDERS, FRANK A MID-MISSOURI	182
DRAPER, BERNARD L MID-MISSOURI	182	DWYER, JAMES G ST. LOUIS METROP.	190	ELIAS, DAVID J JACKSON	098
DRATLER, STANLEY ST. LOUIS METROP.	190	DY-RAGOS, RAMON R CLAY	050	ELIASSEN, SVEN G ST. LOUIS METROP.	190
DREHER, RICHARD L JACKSON	098	DYER, CURTIS W ST. LOUIS METROP.	190	ELISCU, JULIETTE M JASPER	102
DRESCHER, EMMETT B ST. LOUIS METROP.	190	DYER, DALLAS J ST. LOUIS METROP.	190	ELKINS, ROBERT L JACKSON	098
DREWS, ROBT C ST. LOUIS METROP.	190	DYER, GARY A BUCHANAN	030	ELKINS, RONALD F GREENE COUNTY	082
DREY, NORMAN W ST. LOUIS METROP.	190	DZUBAY, JOSEPH J BUCHANAN	030	ELLENBOGEN, CHARLES JACKSON	098
DREYER, CARL J ST. LOUIS METROP.	190	DZUNDZEV, PENCO T ST. LOUIS METROP.	190	ELLER, CHAS H ST. LOUIS METROP.	190
DREYER, PHILIP V C-M-M-R	046	DZUR, JAMES R CAPE GIRARDEAU	042	ELLER, GORDON W CAPE GIRARDEAU	042
DREYER, WM F SOUTH CENTRAL	206			ELLERSIECK, DOROTHY M ST. LOUIS METROP.	190
DRISKO, ROBERT M JACKSON	098	EACHEMPATI, RAMA G ST. LOUIS METROP.	190	ELLETT, WM H WEST CENTRAL	214
DROWN, BRUCE V JACKSON	098	EACHEMPATI, UMA R ST. LOUIS METROP.	190	ELLFELDT, HOWARD J JACKSON	098
DROZDA, JOSEPH ST. LOUIS METROP.	190	EADES, DEE W ST. LOUIS METROP.	190	ELLIOTT, RAYMOND G JACKSON	098
DRUCK, NORMAN S ST. LOUIS METROP.	190	EADES, JOS W ST. LOUIS METROP.	190	ELLIOTT, WADE E JACKSON	098
DU MONT, CLEMENT C BUCHANAN	030	EAGLETON, MARK D ST. LOUIS METROP.	190	ELLIS, DAVID L JACKSON	098
DU MONTIER, RENE J ST. CHARLES-LINCOLN	126	EAKIN, KENNETH M ST. LOUIS METROP.	190	ELLIS, FRANCIS J GREENE COUNTY	082
DUBIN, SOL H JACKSON	098	EARLS, JIM H GREENE COUNTY	082	ELLIS, HARRY L GREENE COUNTY	082
DUBUQUE, THEODORE J ST. LOUIS METROP.	190	EARNEST, JAMES B JACKSON	098	ELLSASSER, JAMES C ST. LOUIS METROP.	190
DUEHLER, ROBT H ST. LOUIS METROP.	190	EARP, RALPH K ST. LOUIS METROP.	190	ELLSWORTH, WILLARD GRAND RIVER	078
DUER, MILDRED C JACKSON	098	EASTERDAY, JERRY L BOONE	026	ELROD, DENNIS B CAPE GIRARDEAU	042
DUERKSEN, JOSEPH J JACKSON	098	EASTON, J D BOONE	026	ELSER, OTTO H JACKSON	098
DUFF, WILLIAM M SOUTH CENTRAL	206	EBBERTS, JAMES W JACKSON	098	ELSON, JULIUS ST. LOUIS METROP.	190
DUFFY, FRANCIS G ST. LOUIS METROP.	190	EBEL, EUGENE H ST. LOUIS METROP.	190	ELYASSI, HEDAYATOLLAH BOONE	026
DUFFY, OLIVER F GRAND RIVER	078	EBERLE, VINCENT L ST. LOUIS METROP.	190	EMERAN, GEORGES J ST. LOUIS METROP.	190
DUGAS, HENRY C ST. LOUIS METROP.	190	ECK, BIRKLE ST. LOUIS METROP.	190	EMERSON, DANIEL P ST. LOUIS METROP.	190
DUGGAN, EILEEN D JACKSON	098	ECKER, DESIDER B ST. LOUIS METROP.	190	EMERSON, REYNOLDS L ST. LOUIS METROP.	190

EMERSON, WILLIAM A ST. LOUIS METROP.	190	FAIR, WM L GRAND RIVER	078	FERRENDELLI, JAMES A ST. LOUIS METROP.	190
ENGEL, LAWRENCE P JACKSON	098	FAIR, WM R ST. LOUIS METROP.	190	FERRIGNI, FILIPPO J ST. LOUIS METROP.	190
ENGELHARDT, ROBT C B-W-R-C	034	FAIRCHILD, JAMES F PERRY-STE. GENEVIEVE	174	FERRIS, CARYL R JACKSON	098
ENGELMANN, CALVIN E JACKSON	098	FAIRCHILD, ROBT C JACKSON	098	FERRO, ANTHONY L ST. LOUIS METROP.	190
ENGELSTAD, BARRY L ST. LOUIS METROP.	190	FAJATIN, ROMULO J ST. LOUIS METROP.	190	FERRY, RICHARD J ST. LOUIS METROP.	190
ENGLEMAN, REINHOLD JACKSON	098	FAKHOURY, DONALD A CLAY	050	FETICK, PAUL G ST. LOUIS METROP.	190
ENGLISH, MILTON T NORTH CENTRAL	162	FAKHRAEE, SAID H ST. LOUIS METROP.	190	FEUTZ, EDWARD P ST. LOUIS METROP.	190
ENGLISH, WALLACE D DUNKLIN	070	FALLON, RICHARD H ST. LOUIS METROP.	190	FIBUCH, EUGENE E JACKSON	098
ENKVETCHAKUL, BOONMEE GREENE COUNTY	082	FALZONE, JOHN J COLE	058	FIGUEROA, EDOUYN ST. LOUIS METROP.	190
EPSTEIN, JAMES M ST. LOUIS METROP.	190	FARAON, JOSE B JACKSON	098	FIGUEROA, ELISEO O ST. LOUIS METROP.	190
ERICKSON, HARTLEY J PETTIS	178	FARBER, BARRY S GREENE COUNTY	082	FILES, JAMES B COLE	058
ERICSSON, SAML E JACKSON	098	FARBERMAN, ELLIOTT ST. LOUIS METROP.	190	FINGERHOOD, MARVIN G ST. LOUIS METROP.	190
ERNST, EDWIN C ST. LOUIS METROP.	190	FARIES, JAMES L B-W-R-C	034	FINGERT, HYMAN H ST. LOUIS METROP.	190
ERNST, JOS G ST. LOUIS METROP.	190	FARKAS, JAMES R PETTIS	178	FINK, LEROY ST. LOUIS METROP.	190
ERNST, RICHARD E ST. LOUIS METROP.	190	FARMER, NORMA P MINERAL AREA	138	FINK, ROGER L GREENE COUNTY	082
ERNST, ROLAND P ST. LOUIS METROP.	190	FARNHAM, MILO M JACKSON	098	FINKEL, BARNEY W ST. LOUIS METROP.	190
ERVIN, JOHN E JACKSON	098	FARRELL, CORINNE BOONE	026	FINN, MURRAY E ST. LOUIS METROP.	190
ESCOBAR, NELSON G BUCHANAN	030	FARRELL, JOHN S ST. LOUIS METROP.	190	FINNEGAN, JOS V ST. LOUIS METROP.	190
ESCOBEDO, BOLIVAR M ST. LOUIS METROP.	190	FARRELL, ROBT J ST. LOUIS METROP.	190	FIORDELISI, ROCCO J ST. LOUIS METROP.	190
ESCOFFERY, RICHARD F ST. LOUIS METROP.	190	FARRELL, SAMMY L FRANKLIN-GASCONADE-W	074	FISCHBEIN, LEWIS C ST. LOUIS METROP.	190
ESHELMAN, ALBERT D JACKSON	098	FARRIS, LARRY E B-W-R-C	034	FISCHER, EDWARD H CLAY	050
ESPARRAGO, F R OZARKS	166	FARTHING, GENE W GREENE COUNTY	082	FISCHER, JOHN R ST. LOUIS METROP.	190
ESPINOSA, TOMAS B-W-R-C	034	FARZANA, FARIDA ST. LOUIS METROP.	190	FISCHER, JOSE M CLAY	050
ESSLINGER, ARTHUR T ST. LOUIS METROP.	190	FATHMAN, ANTHONY E ST. LOUIS METROP.	190	FISCHER, ROBERT ST. LOUIS METROP.	190
ESSMEYER, JOSEPH K CAPE GIRARDEAU	042	FAVAZZA, ARMANDO R BOONE	026	FISCHER, THEODORE PERRY-STE. GENEVIEVE	174
ESTERLY, JAMES A BOONE	026	FAYNE, FRED A JACKSON	098	FISH, RICHARD G ST. LOUIS METROP.	190
ESTES, JACK M ST. LOUIS METROP.	190	FEDOTIN, MICHAEL S JACKSON	098	FISH, VIRGIL O ST. LOUIS METROP.	190
ESTHER, JOHN R JASPER	102	FEE, CHESTER F JACKSON	098	FISHER, JAMES K JACKSON	098
ESTRADA, CORAZON D ST. LOUIS METROP.	190	FEHRENBACHER, KIM A ST. LOUIS METROP.	190	FISHER, JOS L BUCHANAN	030
ETHEREDGE, EDWARD E ST. LOUIS METROP.	190	FEIBEL, ROBT M ST. LOUIS METROP.	190	FISHER, LINDA ST. LOUIS METROP.	190
ETIENNE, ROBT B ST. LOUIS METROP.	190	FEIND, EARL E MID-MISSOURI	182	FISHER, STANLEY D PETTIS	178
ETO, JACKSON K ST. LOUIS METROP.	190	FEIST, GEO V JACKSON	098	FISHMAN, JOHN J ST. LOUIS METROP.	190
EUBANK, DAVID F JACKSON	098	FEIST, WM E JACKSON	098	FISHMAN, NORMAN ST. LOUIS METROP.	190
EUBANK, DILLARD M JACKSON	098	FEIT, ROBERT M ST. LOUIS METROP.	190	FITCH, C H GREENE COUNTY	082
EUBANK, WM Y JACKSON	098	FELDER, JAMES P ST. CHARLES-LINCOLN	126	FITE, JAMES E GREENE COUNTY	082
EUGENIO, ROMEO R PERRY-STE. GENEVIEVE	174	FELDMAN, DAVID ST. LOUIS METROP.	190	FITZ SIMMONS, JAMES G JACKSON	098
EUPRASERT, PRICHA JACKSON	098	FELDMAN, MARK R ST. LOUIS METROP.	190	FITZGERALD, LEO P ST. LOUIS METROP.	190
EVANS, CAROL A JACKSON	098	FELICIANO, WILFRIDO C ST. LOUIS METROP.	190	FITZGERALD, ROBERT H JACKSON	098
EVANS, EZRA L GREENE COUNTY	082	FELIX, ROBT H ST. LOUIS METROP.	190	FITZGERALD, WM T ST. LOUIS METROP.	190
EVANS, JOS C JACKSON	098	FELKER, C. EDWARD CAPE GIRARDEAU	042	FIVIAN, GERALD J ST. LOUIS METROP.	190
EVANS, LAWRENCE G ST. LOUIS METROP.	190	FELKER, J. R CAPE GIRARDEAU	042	FLANCE, ISRAEL J ST. LOUIS METROP.	190
EVANS, LAWRENCE L JACKSON	098	FELLER, HAROLD H ST. LOUIS METROP.	190	FLANDERS, VIRGIL E CLAY	050
EVENS, RONALD G ST. LOUIS METROP.	190	FELLHAUER, CARL M ST. LOUIS METROP.	190	FLANIGAN, GEO D ST. LOUIS METROP.	190
*EVERETT, JAMES E JACKSON	098	FELTS, JAMES A ST. LOUIS METROP.	190	FLATLEY, JOHN A JACKSON	098
EVERSOLL, NORTON J ST. LOUIS METROP.	190	FELTZ, LAWRENCE W PERRY-STE. GENEVIEVE	174	FLEISHMAN, ALFRED ST. LOUIS METROP.	190
EXARHOU, KLARK ST. LOUIS METROP.	190	FERGUSON, DONALD S JACKSON	098	FLEMING, ALLAN R JACKSON	098
EXON, C S COLE	058	FERGUSON, JOHN F GREENE COUNTY	082	FLEMING, JACOB W C-M-M-R	046
EYERMAN, EDWARD L ST. LOUIS METROP.	190	FERGUSON, JOHN L GREENE COUNTY	082	FLEMING, ROBT J ST. CHARLES-LINCOLN	126
EYERMANN, HENRY W FRANKLIN-GASCONADE-W	074	FERGUSON, JOHN P GREENE COUNTY	082	FLEMING, THOS S C-M-M-R	046
EYNON, JAMES R JACKSON	098	FERGUSON, ROBT M JASPER	102	FLETCHER, ROBERT C JACKSON	098
F		FERGUSON, THOS B ST. LOUIS METROP.	190	FLETES, JAMES W ST. LOUIS METROP.	190
FABIAN, LEONARD W ST. LOUIS METROP.	190	FERNANDEZ, FERNANDO BUCHANAN	030	FLORENCE, KERRY E ST. LOUIS METROP.	190
FABITO, DANIEL C ST. LOUIS METROP.	190	FERNEAU, JAMES E BOONE	026	FLORENDO, FEDERICO N M-R-S	130
FABITO, MELINDA A ST. LOUIS METROP.	190	FERNS, FRANCIS E JACKSON	098	FLORENDO, PURIFICACION T M-R-S	130
		FERRELL, THOS E GREENE COUNTY	082	FLORES, JHONSON E ST. LOUIS METROP.	190

FLORES-VEGA, CARLOS H ST. LOUIS METROP.	19D	FRAZIER, ROBT L SEMO	202	GALE, JOS F GRAND RIVER	078
FLORO, MARIANO N ST. LOUIS METROP.	190	FREDERICK, RAYMOND O ST. LOUIS METROP.	190	GALINSKY, LEON J OZARKS	166
FLOTTE, BERNARD H ST. LOUIS METROP.	190	FREEDMAN, RUTH S ST. LOUIS METROP.	190	GALL, IRA C ST. LOUIS METROP.	190
FLOTTE, SYLVESTER A ST. LOUIS METROP.	190	FREEL, JAMES H ST. LOUIS METROP.	190	GALLAGHER, LIONEL M MONITEAU COUNTY	142
FLUG, ERIC J ST. LOUIS METROP.	190	FREEMAN, DAVID M ST. LOUIS METROP.	190	GALVEZ, SISENANDO P GRAND RIVER	078
FLYNN, EDWARD P ST. LOUIS METROP.	190	FREEMAN, JAMES A BOONE	026	GANDLMAYR, JACOB M ST. LOUIS METROP.	190
FLYNN, JAMES M JACKSON	098	FREEMAN, JERRY C JACKSON	098	GANSLOSER, WILBERT M ST. LOUIS METROP.	190
FLYNN, JOHN T ST. LOUIS METROP.	190	FREEMAN, RICHARD ST. LOUIS METROP.	190	GANTNER, GEO E ST. LOUIS METROP.	190
FLYNN, JOS E ST. LOUIS METROP.	190	FREIDEN, FLOYD J JACKSON	098	GANTZ, JOHN A ST. LOUIS METROP.	190
FLYNN, THOMAS T ST. LOUIS METROP.	190	FREIMAN, SEYMOUR M ST. LOUIS METROP.	190	GAPASIN, ERNESTO M LACLEDE	115
FOGARTY, WM M ST. LOUIS METROP.	190	FREIN, DONALD E WEST CENTRAL	214	GARCIA, CHAS L AUDRAIN	014
FOGGERSON, VIRGINIA L GREENE COUNTY	082	FREUND, SAML J ST. LOUIS METROP.	190	GARCIA-FERRER, EDUARDO A ST. LOUIS METROP.	190
FOGLE, PHILIP R GREENE COUNTY	D82	FRIEDMAN, IRA J ST. LOUIS METROP.	190	GARD, RAYMOND F JACKSON	098
FOLCK, WM P JACKSON	098	FRIEDMAN, MORRIS L JACKSON	098	GARDNER, JOS A JASPER	102
FOLKNER, ALBERT L JOHNSON	110	FRIEDMAN, PAUL J JACKSON	098	GARDNER, JOS W OZARKS	166
FOOTE, JERRY E BOONE	026	FRIEDMAN, PAUL L ST. LOUIS METROP.	190	GARFINKEL, BERNARD T ST. LOUIS METROP.	190
FORD, LEE T ST. LOUIS METROP.	190	FRIEDMAN, ROBT H ST. LOUIS METROP.	190	GARNER, JAMES H JACKSON	098
FORD, THOMAS E ST. LOUIS METROP.	190	FRIEDMAN, WILLIAM H ST. LOUIS METROP.	190	GARNER, LYNN M COLE	058
FOREMAN, PHILLIP B M-R-S	130	FRIEDRICH, ANTHONY P ST. LOUIS METROP.	190	GARNER, ROYAL S COLE	058
FORGUE, DONALD R JACKSON	098	FRIEDRICH, ERNST R ST. LOUIS METROP.	190	GARRETT, GLEN H BOONE	026
FORMAN, GEO W BUCHANAN	030	FRIES, ARMAND D ST. LOUIS METROP.	190	GARRIDO, DANTE O BUCHANAN	030
FORMAN, LOUIS H JACKSON	098	FRIES, JOHN W ST. LOUIS METROP.	190	GARRIGA, FRANCISCO J ST. LOUIS METROP.	190
FORSER, JAMES A ST. LOUIS METROP.	190	FRIESEN, RANDALL G ST. CHARLES-LINCOLN	126	GARRISON, DAVID L BUCHANAN	030
FORSMAN, WALDO W ST. LOUIS METROP.	190	FRISCH, HOWARD V B-W-R-C	034	GARRISON, ROY F JACKSON	098
FORSYTH, BRUCE T ST. LOUIS METROP.	190	FRISKEL, ARTHUR K ST. LOUIS METROP.	190	GARRISON, THEODORE W LAKE OF THE OZARKS	120
FORSYTHE, LEES C JACKSON	098	FRISTOE, FRANK H BOONE	026	GARROTTO, LEWIS J BOONE	026
FORSYTHE, ROBT W JACKSON	098	FRTSCH, ANDREW J JASPER	102	GARWOOD, JAN D WEST CENTRAL	214
FORTI, JOHN J ST. LOUIS METROP.	190	FRTZLEN, THOS J JACKSON	098	GASKA, WALTER J GREENE COUNTY	082
FORTIN, DON G CLAY	050	FROELICH, RAE W LACLEDE	115	GASKINS, JOHN H JACKSON	098
FORTIN, FELIX D JACKSON	098	FROGGE, JIMMY D JASPER	102	GASTON, LAMONT W BOONE	026
FORTIN, JORGE A MID-MISSOURI	182	FRUMSON, GUY H ST. LOUIS METROP.	190	GASTON, SAML L JASPER	102
FOTOPOULOS, CHRIS K LAKE OF THE OZARKS	120	FRYER, MINOT P ST. LOUIS METROP.	190	GAUER, ROBT J CLAY	050
FOUTS, DALLAS B JACKSON	098	FUCHS, GEO J BOONE	026	GAUNT, WM D BOONE	026
FOWLER, FRED D JACKSON	098	FUHRMAN, DONALD L JACKSON	098	GAUTHIER, CHARLES P JACKSON	098
FOWLER, I C CLAY	050	FUJITA, MILTON T ST. LOUIS METROP.	190	GAVINI, RAJENDRA R ST. LOUIS METROP.	190
FOWLER, JAMES W JACKSON	098	FULEIHAN, FARID M ST. LOUIS METROP.	190	GEARHART, DAVID L ST. LOUIS METROP.	190
FOWLER, MARVIN L SOUTH CENTRAL	206	FULKS, RICHARD B MONITEAU COUNTY	142	GEARHART, MERRIAM GRAND RIVER	078
FOX, GERALD E BUCHANAN	030	FULLGRABE, EMIL A COLE	058	GEARHART, WILBUR H ST. LOUIS METROP.	190
FOX, LEON J ST. LOUIS METROP.	190	FUNSCH, ROBERT E ST. LOUIS METROP.	190	GEDNEY, WM B ST. LOUIS METROP.	190
FOX, ROBT E ST. LOUIS METROP.	190	FURLA, GUS J ST. LOUIS METROP.	190	GEHA, BRAHAM J JACKSON	098
FRANCIS, MICHAEL G JACKSON	098	FURLONG, LAWRENCE D JACKSON	098	GEHM, LOUIS E WEST CENTRAL	214
FRANCIS, WILLIAM C GREENE COUNTY	082	FUSON, WM A GRAND RIVER	078	GEIGER, WM A JACKSON	098
FRANCISCO, CLARENCE B JACKSON	098			GEISE, AUGUST W ST. LOUIS METROP.	190
FRANCISCO, DOMINIC S ST. LOUIS METROP.	190	GADO, MOKHTAR H ST. LOUIS METROP.	190	GEISSE, GUILLERMO ST. LOUIS METROP.	190
FRANCO, PILAR J JACKSON	098	GADOR, FRANCISCO A JACKSON	098	GELLMAN, ELLIOT F ST. LOUIS METROP.	190
FRANCOIS, RODRIGUE J ST. LOUIS METROP.	190	GAGLIARDO, JOSEPH ST. LOUIS METROP.	190	GEMPEL, PAUL A JACKSON	098
FRANK, ALVIN R ST. LOUIS METROP.	190	GAINES, ALBERT H JACKSON	098	GENOVE-GRUNDEN, VIDALITA JACKSON	098
FRANK, GAE L R PETTIS	178	GAINES, ROBERT W BOONE	026	GENTRY, ENOCH N JACKSON	098
FRANKLIN, CURTIS U JACKSON	098	GAINEX, HAROLD L JACKSON	098	GENTRY, MARVIN C SOUTH CENTRAL	206
FRANKLIN, HAROLD A ST. LOUIS METROP.	190	GAINOR, BARRY J BOONE	026	GENTRY, MERRITT L GREENE COUNTY	082
FRANKLIN, MAX S ST. LOUIS METROP.	190	GAITONDE, MANGESH R JACKSON	098	GENTRY, MICHAEL A GREENE COUNTY	082
FRASER, DANL M ST. LOUIS METROP.	190	GALAKATOS, ANDREW E ST. LOUIS METROP.	190	GENTSCH, KENNETH W ST. LOUIS METROP.	190
FRASER, RICHARD A B-W-R-C	034	GALBOL, HARLEY I CLAY	050	GEORGE, PHILIP G ST. LOUIS METROP.	190
FRAWLEY, THOS F ST. LOUIS METROP.	190	GALBREATH, ASHFORD M JACKSON	098	GEORGE, THEODORE LAFAYETTE-RAY	118
FRAZIER, ROBT E BOONE	026	GALE, ARTHUR H ST. LOUIS METROP.	190	GERAGHTY, THOMAS E CLAY	050

GERDES, JOHN A GREENE COUNTY	082	GOHEEN, JOHN R JACKSON	098	GREEN, J R JACKSDN	098
GERMAN, WALTER A GREENE COUNTY	082	GDLD, JONATHAN A ST. LOUIS METROP.	190	GREEN, JAMES R DUNKLIN	070
GERMANN, DONALD R JACKSON	098	GDLDFARB, ALVIN ST. LOUIS METROP.	190	GREEN, MDRTON R ST. LOUIS METROP.	190
GERMUTH, FREDERICK G ST. LOUIS METROP.	190	GDLDGABER, ALBERTO ST. LOUIS METROP.	190	GREEN, THOMAS F JACKSON	098
GERNSTETTER, S L B-W-R-C	034	GOLDKAMP, JOHN D ST. CHARLES-LINCOLN	126	GREEN, WM R ST. LOUIS METROP.	190
GERDWIN, LANCE ST. LOUIS METROP.	190	GOLDMAN, ARNOLD M ST. LOUIS METROP.	190	GREENBERG, MARTIN T JACKSON	098
GERST, ALOYSIUS C ST. LOUIS METROP.	190	GOLDMAN, GORDON M ST. LOUIS METROP.	190	GREENE, HARRY L M-R-S	130
GERST, JAMES ST. LOUIS METROP.	190	GOLDMAN, HYMEN J ST. LOUIS METROP.	190	GREENLUND, NELSDN C WEST CENTRAL	214
GHOLKAR, VIJAY R JACKSON	098	GOLDMAN, MELVIN L ST. LOUIS METROP.	190	GREENMAN, MARSHALL B ST. LOUIS METROP.	190
GHOSH, NELLIE ST. LOUIS METROP.	190	GOLDMAN, STANLEY L JACKSON	098	GREGORY, JOHN G ST. LOUIS METROP.	190
GHOSH, RANENDRA B BUCHANAN	030	GOLDRING, DAVID ST. LOUIS METROP.	190	GRESICK, ROBT J ST. LOUIS METROP.	190
GIBBONS, ROBT T JACKSON	098	GOLDRING, SIDNEY ST. LOUIS METROP.	190	GRIEGE, CHAS W ST. LOUIS METROP.	190
GIBSON, DAVID M JACKSON	098	GOLDSICH, EDWARD JACKSON	098	GRIESEMER, BERNARD A GREENE COUNTY	082
GIDDINGS, FRANK C GREENE COUNTY	082	GOLDSTEIN, BENJAMIN ST. LOUIS METROP.	190	GRIFFIN, DONALD R JACKSON	098
GIESELMAN, RALPH V ST. LOUIS METROP.	190	GOLDSTEIN, DAVID E BOONE	026	GRIFFIN, M E D-H-P-D	066
*GIFFEN, LAWRENCE E COLE	058	GOLDSTEIN, MARVIN F JACKSON	098	GRIFFIN, OLIN A D-H-P-D	066
GILDEN, JEROME J ST. LOUIS METROP.	190	GOLLUB, SAML W ST. LOUIS METROP.	190	GRIFFIN, WM T BOONE	026
*GILGORE, ALFRED JACKSON	098	GOLTSCHMAN, JOHN P ST. LOUIS METROP.	190	GRIFFITH, JOHN A JACKSON	098
GILL, PAUL J GREENE COUNTY	082	GOMEZ, CESAR A ST. LOUIS METROP.	190	GRIGGS, JAMES Y ST. LOUIS METROP.	190
GILLESPIE, WILLIAM J ST. LOUIS METROP.	190	GONDRING, WILLIAM H BUCHANAN	030	GRIM, EDWARD M JASPER	102
GILLILAND, CHAS E GRAND RIVER	078	GONZALES, JOSE H PERRY-ST. GENEVIEVE	174	GRIMES, ELWYN M JACKSON	098
GILLISPIE, ROY OZARKS	166	GONZALEZ, MARIO G JOHNSON	110	GRIMES, MANNING E BUCHANAN	030
GILPIN, DORIS C ST. LOUIS METROP.	190	GOODMAN, NATHANIEL ST. LOUIS METROP.	190	GRINDON, JOS B ST. LOUIS METROP.	190
GILULA, LOUIS A ST. LOUIS METROP.	190	GOODSON, WM H JACKSON	098	GROCE, GEO D CALLAWAY	038
GINARDI, DONALD E JACKSON	098	GOOLSBEER, ROBT L JACKSON	098	GRONEMEYER, PAMELLA S ST. LOUIS METROP.	190
GINSBERG, NORMAN A JACKSON	098	GORDON, BRUCE J BOONE	026	GROSHONG, TED D BOONE	026
GINSBURG, JORDAN H ST. LOUIS METROP.	190	GORDON, JAMES M ST. LOUIS METROP.	190	GROTE, WALT W CAPE GIRARDEAU	042
GINTHER, JAMES W ST. LOUIS METROP.	190	GORDON, JAMES S COLE	058	GROVE, GULPH W JOHNSON	110
GIRAPARNONT, BANG-ORN ST. LOUIS METROP.	190	GORE, GLENN L ST. CHARLES-LINCOLN	126	GROWDON, JOHN A JACKSON	098
GIRAPARNONT, PRABHAK ST. LOUIS METROP.	190	GORLA, WAYNE O ST. LOUIS METROP.	190	GRUBB, PAUL H JASPER	102
GISH, E R CALLAWAY	038	GOSE, DON F GREENE COUNTY	082	GRUBB, ROBT L ST. LOUIS METROP.	190
GIST, WM W JACKSON	098	GOTTSCH, JOSEPH C JACKSON	098	GRUNDMANN, WM H ST. LOUIS METROP.	190
GIVLER, ROBT L JACKSON	098	GOULD, RONALD J ST. LOUIS METROP.	190	GRUNT, JEROME A JACKSON	098
GLADNEY, JOHN H ST. LOUIS METROP.	190	GOWDAMARAJAN, RENGASAMY JACKSON	098	GUASTELLO, JOS R JACKSON	098
GLASER, LARRY F JACKSON	098	GRABLE, JAMES D PEMISCOT	170	GUASTELLO, MARIO J JACKSON	098
GLASS, ROBT L PETTIS	178	GRACE, STEVE GREENE COUNTY	082	GUBIN, ALAN S PEMISCOT	170
GLASS, WM J OZARKS	166	GRADY, RONALD K ST. LOUIS METROP.	190	GUERRA, GASTON G JACKSON	098
GLASSCOCK, ERNEST L JACKSON	098	GRAFF, RALPH J ST. LOUIS METROP.	190	GUHLEMAN, HENRY V COLE	058
GLATTER, THOMAS R JACKSON	098	GRAGNANI, JOHN A ST. LOUIS METROP.	190	GUILLEN, DIOSDADA T ST. LOUIS METROP.	190
GLAZER, HARVEY S ST. LOUIS METROP.	190	GRAHAM, PATRICK G JACKSON	098	GUKHOOL, PREMLALL CLAY	050
GLAZER, MELVIN L JACKSON	098	GRAHAM, WALLACE H JACKSON	098	GULICK, C R ST. LOUIS METROP.	190
GLENN, EDWARD A PIKE	186	GRANETO, JOS A ST. LOUIS METROP.	190	GULICK, CHARLES R ST. LOUIS METROP.	190
GLENN, THEODORE J CAPE GIRARDEAU	042	GRANNEMANN, H N MID-MISSOURI	182	GUMMELS, BELMONT B ST. LOUIS METROP.	190
GLINES, MICHAEL H ST. LOUIS METROP.	190	GRANT, CLAUDE S BUCHANAN	030	GUNAWARDHANA, H P ST. LOUIS METROP.	190
GLOGOVAC, S. VIC ST. LOUIS METROP.	190	GRANT, JOHN M ST. LOUIS METROP.	190	GUNDLE, SIGMUND JACKSON	098
GLOVER, JACK F GREENE COUNTY	082	GRANT, NEVILLE ST. LOUIS METROP.	190	GUNN, JACK LAKE OF THE OZARKS	120
GLOVER, WM A OZARKS	166	GRANT, RUTH GREENE COUNTY	082	GUNN, RICHARD W JACKSON	098
GLUCK, OSCAR S ST. LOUIS METROP.	190	GRANT, SAML B ST. LOUIS METROP.	190	GUNN, VICTORIA COLE	058
GNADE, ALBERT J ST. LOUIS METROP.	190	GRAUL, WALTER P ST. LOUIS METROP.	190	GUNN, WALTER T ST. LOUIS METROP.	190
GOEBEL, JOAN M ST. LOUIS METROP.	190	GRAVES, ARTHUR J OZARKS	166	GUNTER, JOE S BUCHANAN	030
GOERZ, ANN A JACKSON	098	GRAVISS, EDWARD R ST. LOUIS METROP.	190	GUPTA, B S JACKSON	098
GOERZ, ROYAL D JACKSON	098	GRAY, GARY J ST. LOUIS METROP.	190	GUPTA, JITENDRA K ST. LOUIS METROP.	190
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GUSTAFSON, JON E JACKSON		HALLAZGO, SANTIAGO Y ST. LOUIS METROP.	190	HARDY, HENRY M JACKSON	098
GUTEK, EDWARD P JACKSON	098	HALLEY, R H ST. LOUIS METROP.	190	HARDY, JOHN W JACKSON	098
GUTKNECHT, RICHARD JACKSON	098	HALLINGER, EARL S ST. LOUIS METROP.	190	HARDY, PATRICK J ST. LOUIS METROP.	190
GUTZMER, ERNEST W GREENE COUNTY	082	HALLORAN, MARK J ST. LOUIS METROP.	190	HARDY, STANTON L MINERAL AREA	138
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H		HALVERSON, LARRY W OZARKS	166	HARGIS, JAMES L GREENE COUNTY	082
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H'DOUBLER, PETER B GREENE COUNTY	082	HAMBURGER, STEPHEN C JACKSON	098	HARLOW, LLOYD M JACKSON	098
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HAAS, ROBERT W CLAY	050	HAMILTON, EUGENE G ST. LOUIS METROP.	190	HARPER, FLEMING B ST. LOUIS METROP.	190
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HAFFNER, HEINZ E ST. LOUIS METROP.	190	HAMMES, ROMAN E ST. CHARLES-LINCOLN	126	HARRIS, ROBT J BOONE	026
HAGAN, DAN L J ST. LOUIS METROP.	190	HAMMLER, CHRISTIANA V MID-MISSOURI	182	HARRIS, WELDON L JACKSON	098
HAGAN, JOHN C CLAY	050	HAMMOND, D W ST. LOUIS METROP.	190	HARRISON, LEE B ST. LOUIS METROP.	190
HAGAR, OAVID L JACKSON	098	HAMMOND, DAVID T ST. LOUIS METROP.	190	HARRISON, RICHARD L ST. LOUIS METROP.	190
HAGEBUSCH, OMER E ST. LOUIS METROP.	190	HAMORY, BRUCE H BOONE	026	HARRISON, STRATTON W GREENE COUNTY	082
HAGEMANN, PAUL O ST. LOUIS METROP.	190	HAMPTON, STANLEY F ST. LOUIS METROP.	190	HARRISON, WINSTON E BOONE	026
HAGEN, DUANE Q ST. LOUIS METROP.	190	HAN, JUNG H CALLAWAY	038	HARRY, BRUCE E BOONE	026
HAGEN, GARRETT A ST. LOUIS METROP.	190	HANAN, ERNEST B GREENE COUNTY	082	HARSHMAN, DAVID M ST. LOUIS METROP.	190
HAGEN, MICHAEL D OZARKS	166	HANAWAY, JOS ST. LOUIS METROP.	190	HART, L W JACKSON	098
HAHN, BRUCE H JACKSON	098	HANDLER, ERIC BUCHANAN	030	HART, WILLIAM ST. LOUIS METROP.	190
HAHN, FREDERICK W JACKSON	098	HANDLER, FREQ P COLE	058	HART, WILLIAM G ST. LOUIS METROP.	190
HAHN, YORAM ST. LOUIS METROP.	190	HANES, LILY A ST. LOUIS METROP.	190	HARTMAN, GREGORY L JACKSON	098
HAIBACH, HELMUT BOONE	026	HANKIN, NORMAN M ST. LOUIS METROP.	190	HARTMAN, PAUL T ST. LOUIS METROP.	190
HAIGHT, JOHN M JACKSON	098	HANLEY, THOMAS P ST. LOUIS METROP.	190	HARTMAN, RICHARD A ST. LOUIS METROP.	190
HAITH, EDWARD E JACKSON	098	HANNA, FAYEZ A ST. LOUIS METROP.	190	HARTMANN, HELMUT CAPE GIRARDEAU	042
HAITH, WALTER F JACKSON	098	HANNA, HUGH A JOHNSON	110	HARTNETT, THOS O ST. LOUIS METROP.	190
HALES, ROBERT E B-W-R-C	034	HANNAH, HAMNER JACKSON	098	HARTSTEIN, JACK ST. LOUIS METROP.	190
HALEY, TEO M CLAY	050	HANNAS, RALSTON R JACKSON	098	HARTWIG, FREDERICK H JACKSON	098
HALFORO, RICHARD ST. LOUIS METROP.	190	HANSBROUGH, EUGENE T B-W-R-C	034	HARTWIG, JOHN A ST. LOUIS METROP.	190
HALIM, JAMIL S B-W-R-C	034	HANSEL, FRENCH K ST. LOUIS METROP.	190	HARTWIG, RAYMOND W JACKSON	098
HALL, CHAS R LAKE OF THE OZARKS	120	HANSEN, ARTHUR L WEST CENTRAL	214	HARVEY, HAROLO D GREENE COUNTY	082
HALL, OAVIO G BOONE	026	HANSER, THEODORE H ST. LOUIS METROP.	190	HARVEY, THOMAS S CLAY	050
HALL, OAVIO W GREENE COUNTY	082	HANSON, E J JACKSON	098	HARWELL, JAMES L ST. LOUIS METROP.	190
HALL, DURWARD G GREENE COUNTY	082	HANSON, GARY A CAPE GIRARDEAU	042	HASEK, JAMES A SOUTH CENTRAL	206
HALL, EUGENE W ST. LOUIS METROP.	190	HANSON, KARL H JACKSON	098	HASEK, OLIVER M SOUTH CENTRAL	206
HALL, JOHN C JACKSON	098	HANSON, PAULL R ST. LOUIS METROP.	190	HASENMUELLER, JAMES J ST. LOUIS METROP.	190
HALL, LEE A ST. LOUIS METROP.	190	HANSS, ARMANO W GREENE COUNTY	082	HATA, DAIKICHI COOPER	062
HALL, MARVIN F JASPER	102	HANTMAN, STEPHEN L ST. LOUIS METROP.	190	HATCHETT, JOHN Q BOONE	026
HALL, PRESTON C ST. LOUIS METROP.	190	HANTZ, OSCAR ST. LOUIS METROP.	190	HATFALVI, BELA I ST. LOUIS METROP.	190
HALL, RALPH R JACKSON	098	HARBRECHT, JAMES J JACKSON	098	HAUSER, ROBT J COLE	058
HALL, ROBT A ST. LOUIS METROP.	190	HARDACRE, RUTH A JACKSON	098	HAUSHEER, HERMAN J JACKSON	098
HALL, ROBT T JACKSON	098	HARDIN, WM B ST. LOUIS METROP.	190	HAVALDAR, KAYTI L NORTHWEST	158
HALL, STANLEY G M-R-S	130	HARDWICKE, HENRY M BOONE	026	HAVEY, ANN O BOONE	026
HALL, WM K ST. LOUIS METROP.	190	HARDY, OAVID A ST. LOUIS METROP.	190	HAW, MARVIN T BOONE	026
HALLABA, MOHEB A JASPER	102	HARDY, GUERDAN ST. LOUIS METROP.	190	HAWATMEH, IBRAHIM S ST. LOUIS METROP.	190

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HAWK, THOMAS M		HERDOIZA, ALFONSO W		HOFFER, JEFFREY S	
ST. LOUIS METROP.	190	JACKSON	098	ST. LOUIS METROP.	190
HAWKER, WM D		HERFKENS, KENNETH D		HOFFMAN, JACOB S	
ST. LOUIS METROP.	190	GREENE COUNTY	082	JACKSON	098
HAWKINS, CALVIN O		HERJANIC, MARIJAN		HOFFMAN, ROBERT J	
GREENE COUNTY	082	ST. LOUIS METROP.	190	ST. LOUIS METROP.	190
HAWKINS, GEO L		HERMAN, ALLEN I		HOFFMAN, WILLIAM F	
ST. LOUIS METROP.	190	BUCHANAN	030	ST. LOUIS METROP.	190
HAYDEN, MELVIN R		HERMAN, EDWIN M		HOFFMANN, ALAN L	
LAKE OF THE OZARKS	120	JACKSON	098	JACKSON	098
HAYEK, WESLEY E		HERMAN, MORRIS		HOFFMANN, AUGUSTIN D	
ST. LOUIS METROP.	190	ST. LOUIS METROP.	190	ST. LOUIS METROP.	190
HAYES, JOHN W		HERMANN, CHARLES G		HOFFMANN, LEE M	
PEMISCOT	170	BUCHANAN	030	JACKSON	098
HAYES, LAWRENCE L		HERNANDEZ, SALVADOR R		HOFFMANN, RONALD E	
CLAY	050	ST. LOUIS METROP.	190	ST. LOUIS METROP.	190
HAYES, PAUL W		HERSHEY, FALLS B		HOFMEISTER, ROGER W	
BUCHANAN	030	ST. LOUIS METROP.	190	BOONE	026
HAYNES, JAMES W		HERTEL, RONALD C		HOFSTATTER, LEOPOLD	
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HAYNIE, WILLIAM W		HERTENSTEIN, JOHN R		HOGAN, CORNELIUS E	
WEST CENTRAL	214	CLAY	050	ST. LOUIS METROP.	190
HAYS, LARRY V		HERVEY, WM H		HOGAN, JOHN R	
JACKSON	098	JACKSON	098	ST. LOUIS METROP.	190
HAZAN, JOSEPH		HERYER, JOHN W		HOGAN, PATRICK A	
ST. LOUIS METROP.	190	JACKSON	098	ST. LOUIS METROP.	190
HAZEL, JAMES G		HERZOG, GODOFREDO M		HOGAN, PATRICK C	
PEMISCOT	170	ST. LOUIS METROP.	190	ST. LOUIS METROP.	190
HAZEN, ROBT M		HESKER, ALBERT E		HOJA, WITOLD A	
JACKSON	098	ST. LOUIS METROP.	190	B-W-R-C	034
HAZUKA, OAVIO F		HETRICK, T. H		HOLBROOK, CHAS K	
JACKSON	098	CAPE GIRARDEAU	042	ST. LOUIS METROP.	190
HEADRICK, JOHN A		HEUSLER, ANTON F		HOLCOMB, JOHN K	
ST. LOUIS METROP.	190	ST. LOUIS METROP.	190	CAPE GIRARDEAU	042
HEALY, BRIAN E		HEUTEL, LEE B		HOLLOER, BARRETT K	
JACKSON	098	ST. LOUIS METROP.	190	ST. LOUIS METROP.	190
HECKER, JOS E		HIATT, BARRY A		HOLDER, THOS M	
B-W-R-C	034	ST. LOUIS METROP.	190	JACKSON	098
HEDGES, RICHARD C		HIATT, H C		HOLEKAMP, TIMOTHY	
CLAY	050	ST. LOUIS METROP.	190	BOONE	026
HEEB, MAX A		HIBBARD, BLAINE Z		HOLEMON, R E	
SEMO	202	JACKSON	098	ST. LOUIS METROP.	190
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HEILBRUNN, ILSE		HICKERSON, WM H		HOLLEY, DONALO B	
MIO-MISSOURI	182	JACKSON	098	LAKE OF THE OZARKS	120
HEILMAN, EDWARD J		HICKEY, JAMES L		HOLLINGER, LLOYD A	
JACKSON	098	ST. LOUIS METROP.	190	JACKSON	098
HEIM, MARY L		HICKS, ROBT S		HOLLINGSWORTH, RAY S	
CLAY	050	ST. LOUIS METROP.	190	HENRY COUNTY	086
HEIMBERG, MURRAY		HIGGINS, PHILIP C		HOLLIS, RICHARD W	
BOONE	026	ST. LOUIS METROP.	190	GREENE COUNTY	082
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BOONE	026	JACKSON	098	ST. LOUIS METROP.	190
HEIMBURGER, RICHARD A		HIGHTOWER, HARRY G		HOLLOCHER, RICHARD J	
BOONE	026	ST. LOUIS METROP.	190	ST. LOUIS METROP.	190
HEINS, DONALD E		HILBERT, PAUL H		HOLLOMAN, WALTER G	
BUCHANAN	030	ST. LOUIS METROP.	190	ST. LOUIS METROP.	190
HEINS, JAMES N		HILDRETH, HOWARD R		HOLLWEG, KENNETH C	
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HEINZ, GEORGE		HILL, JACK H		HOLMAN, JOS G	
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HELBING, EDWARD J		HILL, RONALO T		HOLMES, DANL E	
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HELFRICH, LORING		HILL, XACAOENE A		HOLMES, OAVID R	
SEMO	202	ST. LOUIS METROP.	190	GREENE COUNTY	082
HELLAM, DUANE C		HILLMAN, RICHARD E		HOLMES, RICHARD A	
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HELLERSTEIN, STANLEY		HILLS, JOE E		HOLSCHER, EDWARD C	
JACKSON	098	GREENE COUNTY	082	ST. LOUIS METROP.	190
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HELLMAN, ROBERT		HINDS, ROY D		HOLT, WILLIAM J	
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HELMAN, RICHARD G		HIRSCH, JOE E		HOLTON, EDWARD B	
JACKSON	098	JACKSON	098	JACKSON	098
HEMAYA, RIZK M		HIRSCH, JOHN D		HOLTZ, ALAN S	
JACKSON	098	ST. LOUIS METROP.	190	ST. LOUIS METROP.	190
HENDERSON, THOS W		HITE, DENNIS E		HOLTZ, SUMNER	
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HENRICKSON, W E		HOBBS, JOHN E		HOOK, WALLER G	
B-W-R-C	034	ST. LOUIS METROP.	190	JACKSON	098
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HENRY, LAWRENCE O		HODGSON, FRANK H		HOPKINS, JAMES P	
BOONE	026	JACKSON	098	JACKSON	098
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BOONE	026	JACKSON	098	ST. LOUIS METROP.	190
HER, KYU S		HOEPER, SAMUEL D		HORN, PAUL C	
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HORNER, JOHN L. ST. LOUIS METROP.	190	HURLEY, JOSEPH J. ST. LOUIS METROP.	190	JAMES, ELIZABETH J. BOONE	026
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HOWELL, BILLY D. GRAND RIVER	078	HWANG, YUNG H. JASPER	102	JAYANANDAIAH, HIREMATHADA M-R-S	130
HOXWORTH, GERALD M. AUDRAIN	014	HYATT, ROBT W. BOONE	026	JAZBI, BASHARAT U. JACKSON	098
HOY, EDWARD J. ST. LOUIS METROP.	190	HYDE, LAWRENCE L. JACKSON	098	JEAN, J T. ST. LOUIS METROP.	190
HOYE, ROBERT C. PERRY-STE. GENEVIEVE	174	HYMAN, ANNA ST. LOUIS METROP.	190	JEANS, VIRGIL E. JASPER	102
HOYT, TERRY S. BOONE	026			JEDD, JAMES J. ST. LOUIS METROP.	190
HRNICEK, GARY E. GREENE COUNTY	082	IBARRA, GUILLERMO JACKSON	098	JELLEY, V C. JACKSON	098
HSU, CHING F. ST. LOUIS METROP.	190	IDE, CARL H. BOONE	026	JENAB, MORTEZA J. JACKSON	098
HUANG, SHI H. ST. LOUIS METROP.	190	IDE, LUCIEN W. BUCHANAN	030	JENKINS, DAVID C. JACKSON	098
HUBBARD, SALLY L. GREENE COUNTY	082	IKEDA, SHIGEMASA ST. LOUIS METROP.	190	JENKINS, JAMES J. ST. LOUIS METROP.	190
HUBBELL, IRA G. BOONE	026	IMES, ELVIN D. NORTHWEST	158	JENNETT, J H. JACKSON	098
HUBER, LASLEY E. C-M-M-R	046	INGHAM, WALTON C. JACKSON	098	JENNY, ARTHUR B. ST. LOUIS METROP.	190
HUCK, FRANK F. ST. LOUIS METROP.	190	INMAN, MAX M. ST. LOUIS METROP.	190	JENSEN, JOSHUA E. ST. LOUIS METROP.	190
HUCK, RICHARD F. ST. LOUIS METROP.	190	INOCENCIO, EDDIE C. BUCHANAN	030	JENSEN, JOSHUA E. ST. LOUIS METROP.	190
HUCKSTEP, ROBT A. MINERAL AREA	138	IPPENSEN, JOHN H. GREENE COUNTY	082	JICK, SIDNEY ST. LOUIS METROP.	190
HUDGENS, RICHARD W. ST. LOUIS METROP.	190	IRVIN, WILLIAM S. BOONE	026	JIMENEZ, JOSE BUCHANAN	030
HUDSON, GIP R. C-M-M-R	046	IRVIN, WM M. ST. LOUIS METROP.	190	JOBE, CHAS L. GREENE COUNTY	082
HUEWE, DOUGLAS A. GREENE COUNTY	082	IRVINE, JOHN W. JACKSON	098	JOFFE, WM S. ST. LOUIS METROP.	190
HUFFAKER, WILLIAM H. ST. LOUIS METROP.	190	IRWIG, FRED JACKSON	098	JOFTUS, MORRIS ST. LOUIS METROP.	190
HUFFT, ROBERT E. GREENE COUNTY	082	ISAAC, ANITA M. GREENE COUNTY	082	JOHNSON, C L. JACKSON	098
HUGGINS, ALBERT M. ST. LOUIS METROP.	190	ISE, FRANK H. CLAY	050	JOHNSON, CHAS J. ST. LOUIS METROP.	190
HUGHES, CHAS P. ST. LOUIS METROP.	190	ISHIDA, YASUO ST. LOUIS METROP.	190	JOHNSON, CHAS S. JOHNSON	110
HUGHES, DEREK COLE	058	ISLAM, MOHAMMED ST. LOUIS METROP.	190	JOHNSON, DALLAS A. JACKSON	098
HUGHES, JUDSON M. BUCHANAN	030	ISSERMAN, MICHAEL J. ST. LOUIS METROP.	190	JOHNSON, E D. CAPE GIRARDEAU	042
HUGHES, MICHAEL F. JACKSON	098	ITTNER, GEO W. ST. LOUIS METROP.	190	JOHNSON, EARL W. CAPE GIRARDEAU	042
HUGHES, ROBERT E. JACKSON	098	IVY, HENRY B. GREENE COUNTY	082	JOHNSON, FRANK E. ST. LOUIS METROP.	190
HUGHES, ROBT G. ST. LOUIS METROP.	190	IWANE, AKIRA ST. LOUIS METROP.	190	JOHNSON, FRITZ M. GREENE COUNTY	082
HUGHES, SHELBY B. HENRY COUNTY	086	IZMIRLIAN, GRANT ST. LOUIS METROP.	190	JOHNSON, GARETH R. JACKSON	098
HULBERT, BERNARD ST. LOUIS METROP.	190			JOHNSON, GEO A. GREENE COUNTY	082
HULSTRA, JOHANNES F. GREENE COUNTY	082	JABLONSKI, RAYMOND C. ST. LOUIS METROP.	190	JOHNSON, GEO L. GREENE COUNTY	082
HUMMEL, ANTON J. ST. LOUIS METROP.	190	*JACKS, RICHARD K. BUCHANAN	030	JOHNSON, HENRY G. ST. LOUIS METROP.	190
HUMMEL, WM C. ST. LOUIS METROP.	190	JACKSON, DOROTHY JACKSON	098	JOHNSON, JAMES S. JACKSON	098
HUMPHREY, JAMES D. NORTHWEST	158	JACKSON, EDWARD K. PIKE	186	JOHNSON, JOHNNY E. ST. LOUIS METROP.	190
HUMPHREYS, EDWARD T. COOPER	062	JACKSON, HAYWOOD R. JACKSON	098	JOHNSON, JOS C. GREENE COUNTY	082
HUNGATE, CARROLL P. JACKSON	098	JACKSON, ROBT L. BOONE	026	JOHNSON, JOS E. JACKSON	098
HUNKELER, JOHN D. JACKSON	098	JACKSON, VERNON B. CALLAWAY	038	JOHNSON, MICHAEL K. ST. LOUIS METROP.	190
HUNLETH, FRANK E. ST. LOUIS METROP.	190	JACOB, KARL A. ST. LOUIS METROP.	190	JOHNSON, MITCHELL D. ST. LOUIS METROP.	190
HUNT, JOHN L. B-W-R-C	034	JACOBS, CHAS C. ST. LOUIS METROP.	190	JOHNSON, NELSON E. JACKSON	098
HUNT, ROBERT S. CAPE GIRARDEAU	042	JACOBS, FREDERICK A. ST. LOUIS METROP.	190	JOHNSON, RICHARD E. BOONE	026
HUNT, THOS R. JACKSON	098	JACOBS, JOHN R. ST. LOUIS METROP.	190	JOHNSON, RICHARD L. JACKSON	098
HUNTER, JAMES K. NORTHWEST	158	JACOBS, MORTON JACKSON	098	JOHNSON, ROY ST. LOUIS METROP.	190
HUNTINGTON, IONE OZARKS	166	JACOBS, WALTER H. JACKSON	098	JOHNSON, THOMAS W. JACKSON	098
HUNZICKER, WARREN J. JACKSON	098	JACOBSON, MICHAEL JACKSON	098	JOHNSON, THOS M. JACKSON	098
HUO, MD N. AUDRAIN	014	JAEGER, JOS N. CAPE GIRARDEAU	042	JOHNSON, TOM A. ST. LOUIS METROP.	190
HURD, ROBERT N. ST. LOUIS METROP.	190	JAIN, SAVITRI G. ST. LOUIS METROP.	190	JOHNSON, W B. GREENE COUNTY	082
		JAIN, SUMER C. ST. LOUIS METROP.	190	JOHNSON, WARFORD B. GREENE COUNTY	082

* Doctor of Osteopathy.

JOHNSDN, WARREN L JACKSON	098	KALLENBACH, GLEN P AUDRAIN	014	KEITGES, PIERRE W JACKSDN	098
JDHNSON, WM F GREENE COUNTY	082	KAMADA, TSUTDMU ST. CHARLES-LINCOLN	126	KEITHLY, DENNIS J ST. LOUIS METROP.	190
JDHNSTON, GLEN P ST. LOUIS METROP.	190	KAMAKAS, NICHDLAS C ST. LOUIS METROP.	190	KELL, GARY A GREENE CDUNTY	082
JOHNSTON, JDS L GREENE COUNTY	082	KAMENETZKY, STEPHEN A ST. LOUIS METROP.	190	KELLER, LOUIS ST. LOUIS METROP.	190
JDHNSTON, WM D BDONE	026	KAMINSKI, DONALO L ST. LOUIS METROP.	190	KELLER, MAURICE J ST. LOUIS METROP.	190
JDHNSTDNE, JDHN T ST. LOUIS METROP.	190	KAMINSKY, WATSDN W ST. LOUIS METROP.	190	KELLER, RDBT M ST. CHARLES-LINCOLN	126
JOLLY, BENJ N AUDRAIN	014	KANAGAWA, HAROLD K COLE	058	KELLET, JDHN G ST. LOUIS METROP.	190
JDLLY, WM H AUDRAIN	014	KANAREK, JOSEPH JACKSDN	098	KELLEY, GILBERT B ANDREW	010
JDNAS, HARRY S JACKSDN	098	*KANDALAPT, FUAD H S'EMO	202	KELLING, DUGLAS G JACKSON	098
JDNES, ANDREW B ST. LOUIS METROP.	190	KANOT, RAYMOND E JACKSDN	098	KELLING, JORDAN A LAFAYETTE-RAY	118
JDNES, OAVD N CAPE GIRARDEAU	042	KANG, CHANG H ST. LOUIS METROP.	190	KELLY, CHARLES R JACKSON	098
JONES, DOROTHY J ST. LOUIS METROP.	190	KANG, JUAN ST. LOUIS METROP.	190	KELLY, JAMES C GREENE COUNTY	082
JONES, EDNA M HENRY COUNTY	086	KANG, YOUNG M SOUTH CENTRAL	206	KELLY, JOHN J ST. LOUIS METROP.	190
JONES, EDWARD S WEST CENTRAL	214	KANNEGIESSER, HARTMUT ST. LOUIS METROP.	190	KELLY, JOSEPH G CLAY	050
JONES, GALE O JACKSON	098	KANTOR, JULIUS M JACKSON	098	KELLY, R E ST. LOUIS METROP.	190
JONES, GREY ST. LOUIS METROP.	190	KANTOR, OWEN ST. LOUIS METROP.	190	KELTNER, RAYMOND M ST. LOUIS METROP.	190
JONES, HAROLD L GREENE COUNTY	082	KANTOR, SAML JACKSON	098	KELTNER, RAYMOND O JACKSON	098
JONES, JAMES D ST. LOUIS METROP.	190	KAO, MING-SHIAN ST. LOUIS METROP.	190	KENDALL, CHAS A JACKSON	098
JONES, JAMES H ST. LOUIS METROP.	190	KAPLAN, ALEX H ST. LOUIS METROP.	190	KENDALL, FORREST H JACKSON	D98
JONES, KEITH D JOHNSON	110	KAPLAN, MICHAEL F BOONE	026	KENDALL, MALCOLM E JACKSON	098
JONES, MARION E JACKSON	098	KAPPESSER, NETAJEAN G ST. LOUIS METROP.	190	KENDIG, JOHN H ST. LOUIS METROP.	190
JONES, OTEY S ST. LOUIS METROP.	190	KAPPESSER, ROLAND C ST. LOUIS METROP.	190	KENDIS, JOS B ST. LOUIS METROP.	190
JONES, RICHARD A ST. LOUIS METROP.	190	KARANDJEFF, APOSTLE D ST. LOUIS METROP.	190	KENISTON, WILLIAM D JACKSON	098
JONES, ROBERT R WEST CENTRAL	214	KARDESCH, MILTON ST. LOUIS METROP.	190	KENNARD, G K JACKSON	098
JONES, ROBERT S BOONE	026	KARDINAL, CARL G BOONE	026	KENNEDY, FRED R JACKSON	098
JONES, SAML T JACKSON	098	KARL, MICHAEL M ST. LOUIS METROP.	190	KENNEDY, TIMOTHY D JACKSON	098
JONES, SARA T ST. LOUIS METROP.	190	KARR, ROBERT W ST. LOUIS METROP.	190	KENNETT, JERRY D BOONE	026
JONES, T R JACKSON	098	KARRAKER, ALVAN G MINERAL AREA	138	KENNEY, JOHN D JACKSON	098
JONES, VICTOR T ST. LOUIS METROP.	190	KARSH, ROBT S ST. LOUIS METROP.	190	KENNEY, JOHN D ST. LOUIS METROP.	190
JOROAN, WALTER R ST. LOUIS METROP.	190	KARTUS, IRVING JACKSON	098	KENNEY, ROY E OZARKS	166
JORGENSEN, JAMES P CAPE GIRARDEAU	042	KASKIE, CLIFFORD R ST. LOUIS METROP.	190	KENNINGTON, L J ST. LOUIS METROP.	190
JOSEPH, DONALD J BOONE	026	KASS, MICHAEL A ST. LOUIS METROP.	190	KENT, BELA K JACKSON	098
JOSEPH, HAROLD J ST. LOUIS METROP.	190	KASTEN, MELVIN C CAPE GIRARDEAU	042	KEOHANE, MARK ST. CHARLES-LINCOLN	126
JOSEPH, MARY G ST. LOUIS METROP.	190	*KASUKONIS, JOHN E CAPE GIRARDEAU	042	KEOWN, KENNETH K BOONE	026
JOSLYN, HAROLD L ST. LOUIS METROP.	190	KATP, NICOLA Y CLAY	050	KEPES, MAGDA JACKSON	098
JOST, CHAS A ST. LOUIS METROP.	190	KATSANTONIS, GEORGE ST. LOUIS METROP.	190	KERNODLE, JEFFERSON D JACKSON	098
JOTTE, RICHARD F ST. LOUIS METROP.	190	KATZ, SANDRA B JACKSON	098	KERR, FRANK T OZARKS	166
JOYCE, STEVEN T JACKSON	098	KAUFFMAN, RUTH LAKE OF THE OZARKS	120	KERR, HAROLD H JACKSON	098
JUDD, DONALD R ST. LOUIS METROP.	190	KAUFMAN, ANDREW B JACKSON	098	KESSEL, JAMES W ST. LOUIS METROP.	190
JUDGE, WALTER T JEFFERSON	106	KAUFMAN, ROBT L ST. LOUIS METROP.	190	KESSLER, SHELDON ST. LOUIS METROP.	190
JUDY, BERNARD O JACKSON	098	KAUFMANN, HERBERT H JACKSON	D98	KETTERMAN, GRACE H JACKSON	098
JUDY, JOS D ST. LOUIS METROP.	190	KAUK, BRUCE A CLAY	050	KETTERMAN, HERBERT L JACKSON	098
JULIEN, RENE ST. LOUIS METROP.	190	KAUL, PHILIP G JACKSON	098	KEY, JAMES S GREENE COUNTY	082
JUNG, CHRISTOPHER H CAPE GIRARDEAU	042	KAUP, CHANDRA S ST. LOUIS METROP.	190	KEYES, E L ST. LOUIS METROP.	190
JUNG, J M CAPE GIRARDEAU	042	KAY, BILLY F JACKSON	098	KHALIL, TAMER G GREENE COUNTY	082
JUSTUS, JOHN B JACKSON	098	KAYANAN, JOSE C JACKSON	098	KHAN, ABDUL G ST. LOUIS METROP.	190
K		KAYES, JACK ST. LOUIS METROP.	190	KHAN, ABDUL R ST. LOUIS METROP.	190
KABACK, KEITH R JACKSON	098	KAYS, KENNETH M BOONE	026	KHAN, ALTAFA ST. LOUIS METROP.	190
KABIR, MOHAMMED A ST. LOUIS METROP.	190	KAZA, RAMARAO ST. LOUIS METROP.	190	KHAN, M O NORTHWEST	158
KAHN, JOSEPH A SEMO	202	KEAIRNES, HAROLD W JACKSON	098	KHAN, MOHAMMED V.H. MID-MISSOURI	182
KAHN, LAWRENCE I ST. LOUIS METROP.	190	KEATING, JAMES P ST. LOUIS METROP.	190	KHARE, NARENDRA K JACKSON	098
KAHN, MARVIN JACKSON	098	KEEFE, DAVID M ST. CHARLES-LINCOLN	126	KHARE, PRATIBHA JACKSON	098
KAIRUZ, BARTOLOME C ST. LOUIS METROP.	190	KEELER, JAMES E JACKSON	098	KHODADOUST, KAVOUS ST. LOUIS METROP.	190
KAISER, GEO C ST. LOUIS METROP.	190	KEFFLER, KARL L ST. LOUIS METROP.	190	KHOLEIF, ALI ST. LOUIS METROP.	190
		KEIM, J H CAPE GIRARDEAU	042	KHOURY, CECILE S JACKSON	098

KIEKHAEPER, THEODORE C N BUCHANAN	030	KLEIN, SAUL J ST. LOUIS METROP.	190	KOURY, WILLIAM C JACKSON	098
KIENE, RICHARD H JACKSON	098	KLENK, CHAS L ST. LOUIS METROP.	190	KOVAC, S R ST. LOUIS METROP.	190
KIENZLE, EDWARD ST. LOUIS METROP.	190	KLIEFOTH, JAMES A ST. LOUIS METROP.	190	KOWERT, EDWARD H ST. LOUIS METROP.	190
KILKER, DONALD E ST. LOUIS METROP.	190	KLINE, CARLYN M BUCHANAN	030	KRAEGER, RUSSELL R ST. LOUIS METROP.	190
KILLEN, DUNCAN A JACKSON	098	KLINE, EDMUND W BUCHANAN	030	KRAETSCH, ROBERT E ST. LOUIS METROP.	190
KILO, CHAS ST. LOUIS METROP.	190	KLINGNER, GEO M GREENE COUNTY	082	KRAFT, JACOB JACKSON	098
KIM, CHUL B-W-R-C	034	KLINGNER, GEO M GREENE COUNTY	082	KRAHN, HENRY C GREENE COUNTY	082
KIM, LONGIUS H MINERAL AREA	138	KLINKERFUSS, GEO H GREENE COUNTY	082	KRAIN, SAMUEL ST. LOUIS METROP.	190
KIM, STANLEY W ST. LOUIS METROP.	190	KLIPPEL, BERNHARDT W ST. LOUIS METROP.	190	KRANER, JUSTIN F ST. LOUIS METROP.	190
KIM, WILLIAM W ST. LOUIS METROP.	190	KLOECKER, RICHARD J ST. LOUIS METROP.	190	KRANSON, SEYMOUR J JACKSON	098
KIM, YANG H FRANKLIN-GASCONADE-W	074	KLOECKER, ROBT P ST. LOUIS METROP.	190	KRATZ, PAUL E CAPE GIRARDEAU	042
KIMBALL, IRELAND W PLATTE	188	KLOTZ, STEPHEN A JACKSON	098	KRAUS, FREDERICK T ST. LOUIS METROP.	190
KIMBALL, MERRITT H JACKSON	098	KLUZAK, THOMAS R ST. LOUIS METROP.	190	KRAUSE, GEO L ST. LOUIS METROP.	190
KIMBLE, HARVEY S JACKSON	098	KNABB, HENRY F GREENE COUNTY	082	KRAUTMANN, JOHN J COLE	058
KIMELMAN, NATHAN ST. LOUIS METROP.	190	KNABB, KENNETH E GREENE COUNTY	082	KREISMAN, JEROLD J ST. LOUIS METROP.	190
KINDER, OYLE O GREENE COUNTY	082	KNEAL, ELLSWORTH ST. LOUIS METROP.	190	KRETCHMAR, ALAN P ST. LOUIS METROP.	190
KINDER, JAMES A CAPE GIRARDEAU	042	KNEPPER, PAUL A BUCHANAN	030	KREUGER, STEVEN K BUCHANAN	030
KINOER, JERRY L CAPE GIRARDEAU	042	KNIGHT, FRANK H BOONE	026	KREWET, FRANK A ST. LOUIS METROP.	190
KINOREO, LYNN H JACKSON	098	KNIGHT, FRANKLIN P ST. LOUIS METROP.	190	KRISHNASAMY, BHARATH K ST. LOUIS METROP.	190
KING, EUSTACE E ST. LOUIS METROP.	190	KNIGHT, LYLE B JACKSON	098	KROEGER, GEO B ST. LOUIS METROP.	190
KING, FRANCIS C ST. LOUIS METROP.	190	KNIGHT, WM A ST. LOUIS METROP.	190	KROJANKER, ROLF J ST. LOUIS METROP.	190
KING, JAMES C OZARKS	166	KNIGHTEN, YVONNE M JACKSON	098	KROMER, CHAS J ST. LOUIS METROP.	190
KING, JAMES P ST. LOUIS METROP.	190	KNIPSCHILLO, BEOFORO F SALINE	198	KRONEMER, NORTON S ST. LOUIS METROP.	190
KING, JAY T JACKSON	098	KNOCH, H K JACKSON	098	KRUMMENACHER, THOMAS K ST. LOUIS METROP.	190
KING, JOHN V ST. LOUIS METROP.	190	KNOCK, HENRY L ST. LOUIS METROP.	190	KRUPIN, BARBARA A ST. LOUIS METROP.	190
KING, JOHN V ST. LOUIS METROP.	190	KNOPF, HARRY L ST. LOUIS METROP.	190	KRUPIN, THEODORE ST. LOUIS METROP.	190
KING, MORRIS K ST. LOUIS METROP.	190	KNOWLES, ROBT R ST. LOUIS METROP.	190	KRUSE, CARL R M-R-S	130
KING, RICHARD H HENRY COUNTY	086	KNOWLTON, NORMAN P ST. LOUIS METROP.	190	KUANGPARICHAT, MANOCH LAFAYETTE-RAY	118
KING, ROBERT J BOONE	026	KNOWLTON, NORMAN P GREENE COUNTY	082	KUBIN, MILFORD T BOONE	026
KINGSBURY, HELEN JACKSON	098	KOBBERMANN, KOBBY J GREENE COUNTY	082	KUCZER, ARNOLDO ST. LOUIS METROP.	190
KINGSBURY, ROBT J ST. CHARLES-LINCOLN	126	KODNER, IRA J ST. LOUIS METROP.	190	KUEBEL, RICHARD J ST. LOUIS METROP.	190
KINGSLANO, ROBERT C ST. LOUIS METROP.	190	KOEHLER, GEO A ST. LOUIS METROP.	190	KUEBRICH, THOS C ST. LOUIS METROP.	190
KINSELLA, EDWARD D ST. LOUIS METROP.	190	KOEHLER, JOHN W JASPER	102	KUENZI, OONALO E CLAY	050
KINSELLA, MARIA S ST. LOUIS METROP.	190	KOEHLER, ROBERT E ST. LOUIS METROP.	190	KUHLMAN, RALPH F ST. LOUIS METROP.	190
KINSELLA, PETER W ST. LOUIS METROP.	190	KOENIG, MARVIN I ST. LOUIS METROP.	190	KUHLMAN, ROBERT E ST. LOUIS METROP.	190
KINSELLA, RALPH A ST. LOUIS METROP.	190	KOERNER, KENNETH A ST. LOUIS METROP.	190	KUHN, JOHN R JASPER	102
KIPFER, ROBT E GREENE COUNTY	082	KOHLER, KATHRYN O. K. ST. LOUIS METROP.	190	KUHN, NOBUKO O ST. LOUIS METROP.	190
KIPNIS, OAVIO M ST. LOUIS METROP.	190	KOHLER, LOUIS H ST. LOUIS METROP.	190	KUHN, WM F JACKSON	098
KIRCHMER, JOHN T JACKSON	098	KOLOYS, KENNETH W CAPE GIRARDEAU	042	KULAK, GARY ST. LOUIS METROP.	190
KIRKMAN, ROBERT E JASPER	102	KOLKER, ALLAN E ST. LOUIS METROP.	190	KULOWSKI, JACOB BUCHANAN	030
KIRUBAKARAN, VELLORE R BUCHANAN	030	KOLOONY, ROBT C ST. LOUIS METROP.	190	KUMAR, MOHAN V ST. LOUIS METROP.	190
KISSANE, JOHN M ST. LOUIS METROP.	190	KOLZE, VERNON W GREENE COUNTY	082	KUNTZE, RANDALL P DUNKLIN	070
KISSELL, RICHARD W GREENE COUNTY	082	KONZELMAN, JOHN A ST. LOUIS METROP.	190	KUNZ, HAROLD G ST. LOUIS METROP.	190
KISTER, GEO E ST. CHARLES-LINCOLN	126	KOON, BENNY H JACKSON	098	KUNZ, STEPHEN R JACKSON	098
KISTLER, WALTER O ST. LOUIS METROP.	190	KOONTZ, PAUL G JACKSON	098	KUO, GONG T SEMO	202
KISTNER, WM F ST. LOUIS METROP.	190	KOPELSON, JEFFREY C ST. LOUIS METROP.	190	KURTZ, KARL J JACKSON	098
KITCHEY, ALICE D ST. LOUIS METROP.	190	KOPMAN, ERCUMENT A ST. LOUIS METROP.	190	KUTRYB, WALTER J ST. LOUIS METROP.	190
KITCHEN, WM M JACKSON	098	KOPPERMAN, MORDECAI JACKSON	098	KUTTNER, MARIANNE ST. LOUIS METROP.	190
KITOWSKI, THEODORE L ST. LOUIS METROP.	190	KOPPERS, LAWRENCE E JACKSON	098	KWAN, VICENTE W ST. LOUIS METROP.	190
KLACHKO, OAVIO M BOONE	026	KORENBLAT, PHILLIP E ST. LOUIS METROP.	190	KWON, YONGSOO M-R-S	130
KLEBA, LARRY B COLE	058	KORN, ROBT L ST. LOUIS METROP.	190	KWOUN, SOUNG B-W-R-C	034
KLEIN, ADELBERT H ST. LOUIS METROP.	190	KORTH, WM M JACKSON	098	KYAW, MYO M ST. LOUIS METROP.	190
KLEIN, ARNOLO G ST. LOUIS METROP.	190	KOSURI, LALITHA JACKSON	098	KYGER, JOHN E JACKSON	098
KLEIN, EDWARD H JACKSON	098	KOTNER, LAWRENCE M ST. LOUIS METROP.	190	KYZER, DAVID O ST. LOUIS METROP.	190
KLEIN, JACOB ST. LOUIS METROP.	190	KOTNER, LAWRENCE M ST. LOUIS METROP.	190		

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L'ECUYER, JEROME L			LAPP, HARRY C		
ST. LOUIS METROP.	190		JACKSON	098	LEIFER, WM W
LA DRIERE, RAYMONO J			LAROECCA, FELIX F		JACKSON
ST. LOUIS METROP.	190		ST. LOUIS METROP.	190	LEIGHTNER, WM F
LA FERRIERE, KEITH A			LARSEN, VIRGINIA L		ST. LOUIS METROP.
GREENE COUNTY	082		ST. LOUIS METROP.	190	LEMING, BERT H
LA HUE, WILLIAM C			LARSEN, WM E		ST. LOUIS METROP.
LAFAYETTE-RAY	118		JACKSON	098	LEMLEY, JOHN S
LAATSCH, ROBT H			LARSON, PAUL U		ST. LOUIS METROP.
B-W-R-C	034		ST. LOUIS METROP.	190	LEMMON, GEO B
LABABIDI, ZUHDI A			LASETER, MICHAEL		GREENE COUNTY
BOONE	026		B-W-R-C	034	LENOBEL, MILTON I
LABACH, JAMES P			LATHAM, KENYON S		ST. LOUIS METROP.
JACKSON	098		MONITEAU COUNTY	142	LENOBEL, ROBERT S
LABAYEN, RICARDO A			LATHAM, RAYMOND W		ST. LOUIS METROP.
JACKSON	098		JACKSON	098	LENTZ, CLARK H
LACHANCE, LEOPOLD			LATIMER, WALTER N		JACKSON
BOONE	026		CLAY	050	LENTZ, HAROLD C
LACKAMP, ROBERT J			LATTINVILLE, HENRY E		OZARKS
BUCHANAN	030		ST. LOUIS METROP.	190	LENTZ, HAROLO C
LACSON, LETICIA D			LAU, LUIS		JACKSON
ST. LOUIS METROP.	190		ST. LOUIS METROP.	190	LEONHARDT, ERWIN M
LACY, PAUL E			LAUBER, JOS J		ST. LOUIS METROP.
ST. LOUIS METROP.	190		ST. LOUIS METROP.	190	LEPLEY, CHARLES
LADD, CHAS B			LAUER, DANL J		ST. LOUIS METROP.
ST. LOUIS METROP.	190		JACKSON	098	LERNER, BRUCE
LADENSON, ROLANO P			LAUER, JOHN D		JACKSON
BOONE	026		ST. LOUIS METROP.	190	LERNER, SCOTT A
LADYMAN, GEO H			LAUTER, STEVEN		CLAY
B-W-R-C	034		ST. LOUIS METROP.	190	LEROUX, GENE H
LAI, HSIEN-ELL			LAUX, FRANCE A		B-W-R-C
LAFAYETTE-RAY	118		ST. LOUIS METROP.	190	LERWICK, EVERETT R
LAIRD, JOHN M			LAWRENCE, GEO H		ST. LOUIS METROP.
ST. LOUIS METROP.	190		ST. LOUIS METROP.	190	LESLIE, CHAS H
LAL, ROOP			LAWRENCE, JOHN R		ST. LOUIS METROP.
JACKSON	098		SALINE	198	LESLIE, JAMES T
LALLY, JAMES J			LAWTON, JOHN T		COLE
JACKSON	098		ST. LOUIS METROP.	190	LESLIE, STEPHEN A
LAM, ERNESTO S			LAYCOB, LELAND M		CLAY
ST. LOUIS METROP.	190		ST. LOUIS METROP.	190	LESTMANN, HENRY E
LAMAR, ROBT F			LAYLE, JOHN K		B-W-R-C
JACKSON	098		JACKSON	098	LEVENE, ROBERT B
LAMB, WANDA			LAYTON, IRA C		GRAND RIVER
ST. LOUIS METROP.	190		JACKSON	098	LEVEY, HARRY B
LAMBERT, LAURA M			LE BLANC, LEO J		JACKSON
JACKSON	098		ST. LOUIS METROP.	190	LEVIN, MARVIN E
LAMBERTI, JOS W			LE FEVRE, PHILIP J		ST. LOUIS METROP.
BOONE	026		GREENE COUNTY	082	LEVINE, LAURENCE A
LAMBIE, RODGER W			LEACH, WILFRED		ST. LOUIS METROP.
JACKSON	098		ST. LOUIS METROP.	190	LEVINE, STEVEN M
LAMONDA, GARY W			LEARY, DANL J		ST. LOUIS METROP.
C-M-M-R	046		ST. LOUIS METROP.	190	LEVITT, JOS
LAMPING, J. D			LEARY, WILLIAM V		ST. LOUIS METROP.
ST. LOUIS METROP.	190		B-W-R-C	034	LEVITT, ROBT G
LAMPROS, WM P			LEDERER, CHAS M		ST. LOUIS METROP.
ST. LOUIS METROP.	190		JOHNSON	110	LEVY, JEROME F
LAMPTON, LAWRENCE M			LEE, CARLETON H		ST. LOUIS METROP.
BOONE	026		BUCHANAN	030	LEVY, MORTON A
LAMY, JOHN E			LEE, DUK S		ST. LOUIS METROP.
PETTIS	178		ST. LOUIS METROP.	190	LEWELLEN, CHAS H
LANOAU, WM M			LEE, DWIGHT A		PIKE
ST. LOUIS METROP.	190		ST. LOUIS METROP.	190	LEWIN, W H
LANDER, JERROLD J			LEE, FRANSISKA A		ST. LOUIS METROP.
ST. LOUIS METROP.	190		ST. LOUIS METROP.	190	LEWIS, FRANK H
LANDER, ROBERT C			LEE, GERALD B		JACKSON
ST. LOUIS METROP.	190		JACKSON	098	LEWIS, JAMES E
LANDERS, BURNELL			LEE, HENRY A		ST. LOUIS METROP.
JACKSON	098		JACKSON	098	LEWIS, REVIS C
*LANDERS, GARY A			LEE, HUN TAE		JACKSON
CLAY	050		BOONE	026	LEWIS, ROBERT D
LANDHUIS, LEO R			LEE, JOSEPH KING TAK		ST. LOUIS METROP.
BOONE	026		ST. LOUIS METROP.	190	LEWITTON, SOLOMON
LANDIS, GEO K			LEE, JUNG H		JACKSON
JACKSON	098		JEFFERSON	106	LIANG, JING C
LANORY, J H			LEE, KIL S		JACKSON
ST. LOUIS METROP.	190		ST. LOUIS METROP.	190	LIAO, KUN T
LANDSBAUM, CHARLES J			LEE, KING Y		ST. LOUIS METROP.
COLE	058		JACKSON	098	LICHTENSTEIN, JACK R
LANDY, RICHARO			LEE, LAWRENCE E		ST. LOUIS METROP.
ST. LOUIS METROP.	190		JACKSON	098	LICHTOR, JOS H
LANE, CLINTON W			LEE, SOOK-LA		JACKSON
LANE, DANL K			C-M-M-R	046	LICHTY, CHAS A
ST. LOUIS METROP.	190		LEE, TAE H		M-R-S
LANG, JOHN J			JACKSON	098	LIEB, FRANCIS X
ST. LOUIS METROP.	190		LEE, YEW SOONG		ST. LOUIS METROP.
LANGAN, JAMES G			ST. LOUIS METROP.	190	LIEBERMAN, DAVID M
ST. LOUIS METROP.	190		LEECH, CHAS A		ST. LOUIS METROP.
LANGE, ADOLPH C			BOONE	026	LIEBHABER, HARVEY
ST. LOUIS METROP.	190		LEECH, MAURICE P		ST. LOUIS METROP.
LANGE, DAVID R			HOWARD	094	LILA, ARAM
ST. LOUIS METROP.	190		LEEPER, CLAUDE K		CLAY
LANGENBACH, ALFRED M			BOONE	026	LILLY, DOUGLAS R
ST. LOUIS METROP.	190		LEEPER, SIDLEE W		ST. LOUIS METROP.
LANGEVIN, JACK A			BOONE	026	LIM, IL T
SOUTH CENTRAL	206		LEES, JOYCE M		ST. LOUIS METROP.
LANGLEY, HARRIET S			JACKSON	098	LIMA, JOSE A
JACKSON	098		LEESE, PHILIP T		ST. LOUIS METROP.
LANIER, EARL W			JACKSON	098	LIMPATARMONKOL, PIEMSAKDI
ST. LOUIS METROP.	190		LEGAN, JOHN K		ST. LOUIS METROP.
LANKFORD, HAROLD D			DUNKLIN	070	LIMPIPHIPHATN, DHAIJPHONG
AUDRAIN	014		LEGARDA, MARIA M		PERRY-STE. GENEVIEVE
LANSANGAN, ISAIAS P			JACKSON	098	LIMPIPHIPHATN, ESTER P
ST. LOUIS METROP.	190		LEHMAN, PHILIP C		PERRY-STE. GENEVIEVE
LANSCH, W E			BUCHANAN	030	LIN, C H
ST. LOUIS METROP.	190		LEHNER, RICHARD L		C-M-M-R
LAPI, ANGELO			JACKSON	098	LIN, CHI-HSI
JACKSON	098		LEIBSOHN, JOEL M		GREENE COUNTY
			JACKSON	098	LIN, H T
			LEIDINGER, KARL J		C-M-M-R
			GREENE COUNTY	082	LINBERG, JOHN V
					ST. LOUIS METROP.

LINDBERG, DONALD A BOONE	026	LONGENECKER, JOE L JASPER	102	MAC GEE, EDWIN E JACKSON	098
LINDEMAN, CARL H ST. LOUIS METROP.	190	LONSWAY, MAURICE J ST. LOUIS METROP.	190	MAC INNIS, FLORENCE E JACKSON	098
LINDEMAN, JOHN F ST. LOUIS METROP.	190	LOPEZ-PLATA, ROBERTO JACKSON	098	MAC LAUGHLIN, JAMES C JASPER	102
LINDER, HOWARD E ST. LOUIS METROP.	190	LORD, JAMES L JACKSON	098	MAC NAUGHTON, RALPH E JACKSON	098
LINDGREN, CARLETON J JACKSON	098	LORD, RICHARD E ST. LOUIS METROP.	190	MAC NAUGHTON, ROBT A JACKSON	098
LINDQUIST, CARL N JACKSON	098	LORENC, ERNEST GREENE COUNTY	082	MACAULEY, BERNARD J B-W-R-C	034
LINK, ALEXANDER J ST. LOUIS METROP.	190	LORENZD, EDILBERTO B JACKSON	098	MACDONALD, ROBIN R JACKSON	098
LINK, VANCE E JACKSON	098	LORENZO-MEDINA, REMEDIOS JACKSON	098	MACDDNALD, WM C ST. LOUIS METROP.	190
LINS, RDBT D ST. LOUIS METROP.	190	LOTTES, J O ST. LOUIS METROP.	190	MACDDNNELL, THOS M WEBSTER	210
LINSEMEYER, CHARLES M ST. CHARLES-LINCOLN	126	LOTUACO, GAMALIEL G JACKSON	098	MACEREN, RODOFED L ST. LOUIS METROP.	190
LINVILLE, HOWARD E JACKSON	098	LOUGHEAD, JOHN R B-W-R-C	034	MACHEK, DTAKAR ST. LOUIS METROP.	190
LIPSCHITZ, ERVIN ST. LOUIS METROP.	190	LOUTZENHISER, JAMES K JACKSON	098	MACLEDD, ANGUS ST. LOUIS METROP.	190
LIPSITZ, ELLIS S ST. LOUIS METROP.	190	LOVETT, ROBERT L GREENE COUNTY	082	MACNISH, JAMES M ST. LOUIS METROP.	190
LISCHER, CARL E ST. LOUIS METROP.	190	LOVINGER, WARREN C ST. LOUIS METROP.	190	MADDIPATI, SREEDEZI ST. LOUIS METROP.	190
LISCHWE, DANIEL H ST. LOUIS METROP.	190	LOVINGGOOD, THOS A CAPE GIRARDEAU	042	MADDOX, ALBERT R PETTIS	178
LISS, JAY L ST. LOUIS METROP.	190	LOWE, ALVIN L PETTIS	178	MADDURI, ARUNA D B-W-R-C	034
LISSNER, ARTHUR B ST. LOUIS METROP.	190	LOWE, HORACE A GREENE COUNTY	082	MADDURI, SIVAPRASAD D B-W-R-C	034
LISTERMAN, JOHN C GREENE COUNTY	082	LOWENSTEIN, PAUL S ST. LOUIS METROP.	190	MADDUX, WM P GREENE COUNTY	082
LITTLE, MONROE H ST. LOUIS METROP.	190	LOWTHER, GERALD S ST. LOUIS METROP.	190	MADJITEY, GEDRGE ST. LOUIS METROP.	190
LITTLEJOHN, ROBERT T CLAY	050	LOYD, EARL L COLE	058	MADOC JONES, HYWEL ST. LOUIS METROP.	190
LITTMANN, LEWIS E ST. LOUIS METROP.	190	LOYND, ROBT C ST. LOUIS METROP.	190	MADRID, DOMINADOR O ST. LOUIS METROP.	190
LITTON, LYLE D GREENE COUNTY	082	LU, FANG T ST. LOUIS METROP.	190	MAGALETTA, GEO E CAPE GIRARDEAU	042
LITTON, LYNN O BOONE	026	LUBOWITZ, HERBERT ST. LOUIS METROP.	190	MAGEE, ROBT L WEST CENTRAL	214
LITTDN, NANCY J JACKSON	098	LUCAS, LUKE W BOONE	026	MAGEE, WM E ST. LOUIS METROP.	190
LITWILLER, RAYMOND W BOONE	026	LUCIDO, JOSEPH L ST. LOUIS METROP.	190	MAGINN, R R ST. LOUIS METROP.	190
LITZOW, PETER L ST. LOUIS METROP.	190	LUCKENBILL, PAUL T CLINTON	054	MAGINN, RICHARD L BUCHANAN	030
LIU, BEN C JACKSON	098	LUECHTEFELD, FRANK ST. LOUIS METROP.	190	MAGNESS, GUY N ST. LOUIS METROP.	190
LIVINGSTON, DON G ST. LOUIS METROP.	190	LUEDE, PHILIP S ST. LOUIS METROP.	190	MAGRUDER, LYLELL M WEST CENTRAL	214
LLANES-RODAS, RIZALINA CLAY	050	LUEHRS, ROBERT O ST. LOUIS METROP.	190	MAHADEVAN, JAMBUNATHAN ST. LOUIS METROP.	190
LLINAS, ALFREDO J ST. LOUIS METROP.	190	LUETJE, CHARLES M JACKSON	098	MAHBUBI, AZIZ O SEMO	202
LLORENS, ALFRED S BOONE	026	LUGO, SAML ST. LOUIS METROP.	190	MAHE, GEO A ST. LOUIS METROP.	190
LO PICCOLO, VINCENT J ST. LOUIS METROP.	190	LUH, ANDREW M ST. LOUIS METROP.	190	MAHER, ROBT W GREENE COUNTY	082
LO PICCOLO, VINCENT J ST. LOUIS METROP.	190	LUM, JON T ST. LOUIS METROP.	190	MAHER, THOS F ST. LOUIS METROP.	190
LOBECK, CHARLES C BOONE	026	LUNAGJAMEKORN, VERACHAI PEMISCOT	170	MAHMOUD, SAID F JACKSON	098
LOCKARD, ORLYN O BUCHANAN	030	LUND, HERLUF G ST. LOUIS METROP.	190	MAHONEY, JOHN P BOONE	026
LOCKHART, CHAS E GREENE COUNTY	082	LUND, ROBT H ST. LOUIS METROP.	190	MAIS, THOMAS E JACKSON	098
LOCKWOOD, GARY F JACKSON	098	LUNDMAN, HUGH J GREENE COUNTY	082	MAITZ, CARLOS A ST. LOUIS METROP.	190
LOCKWOOD, TED E JACKSON	098	LURIE, HAROLD H GREENE COUNTY	082	MAJOR, TROY E GREENE COUNTY	082
LODWICK, GWILYM S BOONE	026	LUSK, CHAS A WEST CENTRAL	214	MAJORS, PATRICK F ST. LOUIS METROP.	190
LOEB, RICHARD H GREENE COUNTY	082	LUTHER, GEORGE A ST. LOUIS METROP.	190	MAJZOU, HISHAM S JASPER	102
LOEB, VIRGIL ST. LOUIS METROP.	190	LUTKEWITTE, JOS F PERRY-STE. GENEVIEVE	174	MALEK-AHMADI, PARVIZ BOONE	026
LOEFFEL, ELLEN S ST. LOUIS METROP.	190	LUZECKY, MICHAEL H GREENE COUNTY	082	MALIK, SARFRAZ A ST. LOUIS METROP.	190
LOGIE, MACDONALD B ST. LOUIS METROP.	190	LYDDON, HAROLD R JACKSON	098	MALLOUK, ALEXANDER G JACKSON	098
LOGUE, JOHN T BOONE	026	LYLE, ROBT R LAKE OF THE OZARKS	120	MALLOW, JAMES E JACKSON	098
LOHMAN, ROLAND E BOONE	026	LYMAN, EDWARD H ST. LOUIS METROP.	190	MALLYA, ASHOK R ST. LOUIS METROP.	190
LOHR, ROBT W ST. LOUIS METROP.	190	LYNCH, THOS W GREENE COUNTY	082	MALMBERG, VIRGIL L ST. LOUIS METROP.	190
LOHRENTZ, LOIS H JACKSON	098	LYNXWILER, CHESTER P ST. LOUIS METROP.	190	MALONEY, ROBT M ST. LOUIS METROP.	190
LOITMAN, BERNARD S ST. LOUIS METROP.	190	LYSKOWSKI, MARIA M CAPE GIRARDEAU	042	MALT, SHERWIN H ST. LOUIS METROP.	190
LONDE, ALAN M ST. LOUIS METROP.	190	LYSS, CARL A ST. LOUIS METROP.	190	MALTY, JAMES D BOONE	026
LONDE, SOL ST. LOUIS METROP.	190	LYSS, STANLEY B ST. LOUIS METROP.	190	MAMALIS, NICHOLAS D JACKSON	098
LONDON, STANLEY L ST. LOUIS METROP.	190	LYTLE, GARNET C ST. LOUIS METROP.	190	MAMINTA, NAPOLEON S ST. LOUIS METROP.	190
LONERGAN, WARREN M ST. LOUIS METROP.	190			MANALO, GIL B JASPER	102
LONG, CURTIS W WEST CENTRAL	214			MANANSALA, ANTONIO Q ST. LOUIS METROP.	190
LONG, FRANK B ST. LOUIS METROP.	190			MANDLER, GEO GRAND RIVER	078
LONG, R S JACKSON	098			MANES-MARTINEZ, JOSE ST. LOUIS METROP.	190

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MANGALAT, NARAYANAN K JASPER	102	MARTZ, JOHN C ST. LOUIS METROP.	190	MC COOL, STANLEY ST. LOUIS METROP.	190
MANGELS, KENNETH A JACKSON	098	MASON, WAYNE E JACKSON	098	MC CORCLE, MARCUS D ST. LOUIS METROP.	190
MANGELSOORF, THOMAS K ST. LOUIS METROP.	190	MASSEY, WARNER B B-W-R-C	034	MC CORD, E S BOONE	026
MANGUM, WILLIAM B JACKSON	098	MASSIE, EDWARD ST. LOUIS METROP.	190	MC CORKLE, E L SALINE	198
MANGUNTA, VIJAYA K CAPE GIRARDEAU	042	MASTERS, EDWIN J SEMO	202	MC CORMICK, JAMES E CLAY	050
MANION, MARIA E ST. LOUIS METROP.	190	MASTERS, WM H ST. LOUIS METROP.	190	MC COWN, ALLAN H ST. LOUIS METROP.	190
MANION, PETER J ST. LOUIS METROP.	190	MASUCCI, JOS M JACKSON	098	MC COY, FREDERICK J JACKSON	098
MANION, THOS S JACKSON	098	MATHEW, MALEAKAL S ST. LOUIS METROP.	190	MC COY, WARREN R PEMISCOT	170
MANLEY, CHAS B ST. LOUIS METROP.	190	MATHEW, POYANIL M ST. LOUIS METROP.	190	MC CRAW, OOLEY C D-H-P-D	066
MANN, JAMES K M-R-S	130	MATHEW, RUBY ST. LOUIS METROP.	190	MC CRAY, GLEN M JACKSON	098
MANNIS, CHARLES I ST. LOUIS METROP.	190	MATHEY, JOSEPH W B-W-R-C	034	MC CRAY, STEPHEN A CLAY	050
MANSKE, PAUL R ST. LOUIS METROP.	190	MATOVICH, VIOLET B JACKSON	098	MC CREA, WM A GREENE COUNTY	082
MANTELL, JACK M GREENE COUNTY	082	MATSUDA, GOROON T MID-MISSOURI	182	MC CULLOUGH, CAMPBELL C JACKSON	098
MANTENA, RAJU N ST. LOUIS METROP.	190	MATTA, CAMILLE S JACKSON	098	MC DANIEL, JOHN R BUCHANAN	030
MANUBAY, TERESITA OUNKLIN	070	MATTESON, FRANK B NORTHWEST	158	MC DAVID, ROBERT E BOONE	026
MANUBAY, THEODORO DUNKLIN	070	MATTHEWS, HOMER B ST. LOUIS METROP.	190	MC DERMOTT, ALFRED E PERRY-STE. GENEVIEVE	174
MANUEL, LOUIS C JACKSON	098	MATTHEWS, JOHN G ST. LOUIS METROP.	190	MC DONALD, EUGENE F CAPE GIRARDEAU	042
MAPLE, FRANCIS M GREENE COUNTY	082	MATTHEWS, JOHN I COLE	058	MC DONALD, HERBERT L JACKSON	098
MARANAN, DIOSDADO L ST. LOUIS METROP.	190	MAUGHS, SYDNEY B ST. LOUIS METROP.	190	MC DONALD, WALLACE BUCHANAN	030
MARAVILLA, LEVY M ST. LOUIS METROP.	190	MAULOIN, OLIN B JACKSON	098	MC DONALD, WILBUR P BUCHANAN	030
MARCHOSKY-KOGAN, JOSE A ST. LOUIS METROP.	190	MAX, PAUL F ST. LOUIS METROP.	190	MC DONNELL, JOHN F JACKSON	098
MARCUS, MORRIS D ST. LOUIS METROP.	190	MAXSON, THEODORE R JOHNSON	110	MC ELROY, CARLA N JACKSON	098
MARONINI, EDWARD E MINERAL AREA	138	MAXWELL, RICHARD W ST. LOUIS METROP.	190	MC ELROY, GLENN L BOONE	026
MARGOLIS, OAVID M ST. LOUIS METROP.	190	MAY, ALBERT L B-W-R-C	034	MC FADDEN, GENE A LAFAYETTE-RAY	118
MARGOLIS, RICHARD M ST. LOUIS METROP.	190	MAYER, JOHN H JACKSON	098	MC FARLAND, H R JACKSON	098
MARIENFELD, CARL J BOONE	026	MAYER, ROBT A ST. LOUIS METROP.	190	MC FARLAND, M D JACKSON	098
MARIETTA, WILLIAM G CAPE GIRARDEAU	042	MAYFIELD, WM R ST. LOUIS METROP.	190	MC GANNON, PAUL T JACKSON	098
MARKIVEE, CARROLL R BOONE	026	MAYUGA, EDGARDO G ST. LOUIS METROP.	190	MC GINNIS, WM F ST. LOUIS METROP.	190
MARKS, MARK M JACKSON	098	MAYUGA, LAUREANO G SOUTH CENTRAL	206	MC GINTY, CHAS P CAPE GIRARDEAU	042
MARMOR, WM A ST. LOUIS METROP.	190	MC ADAM, CHAS R ST. LOUIS METROP.	190	MC GONIGLE, JAMES P JASPER	102
MARRS, DAVID B ST. LOUIS METROP.	190	MC AFEE, CHESTER A ST. LOUIS METROP.	190	MC GONIGLE, MICHAEL M JASPER	102
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MARSH, ALICE JACKSON	098	MC ALHANY, HOWARD J GREENE COUNTY	082	MC GUIRE, THOS H JACKSON	098
MARSH, JEFFREY L ST. LOUIS METROP.	190	MC ALISTER, WM H ST. LOUIS METROP.	190	MC HANEY, JOHN W COLE	058
MARSHALL, CAMERON F JACKSON	098	MC ALLISTER, CHARLES K JACKSON	098	MC INTOSH, DONALD E JACKSON	098
MARSHALL, HAL E JACKSON	098	MC ANELLY, GEORGE C B-W-R-C	034	MC INTOSH, MICHELE C JACKSON	098
MARSHALL, JAY P ST. LOUIS METROP.	190	MC ARTOR, THOS R GRAND RIVER	078	MC INTYRE, JOHN D JACKSON	098
MARSHALL, WILLIAM G HOWARD	094	MC BURNEY, CHAS A SALINE	198	MC KEE, FRANK E JACKSON	098
MARSTON, FREDERICK J BUCHANAN	030	MC CAFFREE, MARY K COLE	058	MC KEE, OLIVER A ST. LOUIS METROP.	190
MARTEL, DOMINIQUE J ST. LOUIS METROP.	190	MC CALL, EDWIN L ST. LOUIS METROP.	190	MC KEE, WALLACE P JACKSON	098
MARTI, LARRY B MID-MISSOURI	182	MC CALLA, JOHN P CLAY	050	MC KEEL, THOS B JACKSON	098
MARTIN, ANDREW D SEMO	202	MC CALLISTER, BEN D JACKSON	098	MC KINNEY, JOE K ST. LOUIS METROP.	190
MARTIN, CATALINO V JACKSON	098	MC CANN, LOUIS P WEST CENTRAL	214	MC KNELLY, WM V JACKSON	098
MARTIN, CLARENCE A JASPER	102	MC CANSE, ANDREW JACKSON	098	MC LANE, JERRY F B-W-R-C	034
MARTIN, CLYDE V JACKSON	098	MC CANSE, LYNN R JACKSON	098	MC LAUGHLIN, DURNELL JACKSON	098
MARTIN, DANL J ST. LOUIS METROP.	190	MC CARTHY, JOHN M ST. LOUIS METROP.	190	MC LAUGHLIN, KATHLEEN S ST. LOUIS METROP.	190
MARTIN, DAVID S ST. LOUIS METROP.	190	MC CAUGHAN, JOHN M ST. LOUIS METROP.	190	MC LAUGHLIN, RICHARD D GREENE COUNTY	082
MARTIN, FREDERICK W ST. LOUIS METROP.	190	MC CLANAHAN, ROBT C JACKSON	098	MC LEAN, ROYAL C ST. LOUIS METROP.	190
MARTIN, JOHN B ST. LOUIS METROP.	190	MC CLINTOCK, MARTIN B ST. LOUIS METROP.	190	MC LEMORE, WILLIE O JACKSON	098
MARTIN, JOHN N BUCHANAN	030	MC CLOSKEY, ROBT B ST. LOUIS METROP.	190	MC MILLAN, DAVID L OZARKS	166
MARTIN, RICHARD A CAPE GIRARDEAU	042	MC CLUGGAGE, NEWTON C CLAY	050	MC MILLAN, THOS E JACKSON	098
MARTIN, WENDELL J PIKE	186	MC CLURE, DAVIO N ST. LOUIS METROP.	190	MC MILLEN, JAMES J BUCHANAN	030
MARTINEZ, ARMANDO I ST. LOUIS METROP.	190	MC CONAHAY, DAVID R JACKSON	098	MC MULLIN, FORBES A ST. LOUIS METROP.	190
MARTIREZ, EMMANUEL ST. LOUIS METROP.	190	MC CONCHIE, JAMES E JACKSON	098	MC MURRAY, HERBERT C ST. LOUIS METROP.	190
MARTY, OAVID R COLE	058	MC COOL, JAMES F ST. LOUIS METROP.	190	MC NABNEY, W K JACKSON	098

MC NALLEY, MICHAEL ST. LOUIS METROP.	190	MERRITT, BURCH A ST. LOUIS METROP.	190	MILLER, JAMES E ST. LOUIS METROP.	190
MC NAMARA, JOHN J ST. LOUIS METROP.	190	MERVEILLE, OCTAVE C JACKSON	098	MILLER, JAMES R ST. LOUIS METROP.	190
MC NEEL, LEE A D-H-P-D	066	MESTRES, HUGH M ST. LOUIS METROP.	190	MILLER, JULE P ST. LOUIS METROP.	190
MC NUTT, THEODORE L JACKSON	098	METZ, CHAS O ST. LOUIS METROP.	190	MILLER, LEROY S BOONE	026
MC PHEE, WM R CLAY	050	METZL, KURT JACKSON	098	MILLER, MAX I JACKSON	098
MC PIKE, LLOYD H JASPER	102	METZLER, MICHAEL H BDDNE	026	MILLER, MICHAEL R JACKSON	098
MC CLENNAN, BRUCE L ST. LOUIS METROP.	190	MEYER, HARRY E ST. LOUIS METROP.	190	MILLER, NDRMAN C ST. LOUIS METROP.	190
MC ELROY, GEDRGE L COLE	058	MEYER, HERMAN M ST. LOUIS METROP.	190	MILLER, ROBT N ST. LOUIS METROP.	190
MCKINNEY, WILLIAM D ST. LOUIS METROP.	190	MEYER, JAMES E ST. LOUIS METROP.	190	MILLER, WILSON H JACKSON	098
MCLAREN, ANN L ST. LOUIS METROP.	190	MEYER, JAY ST. LOUIS METROP.	190	MILLER, WM V ST. LOUIS METROP.	190
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MEADDS, CHAS D ST. LOUIS METROP.	190	MEYER, JOHN S ST. LOUIS METROP.	190	MILNE, JAY L GREENE COUNTY	082
MECHLIN, DAVID C BOONE	026	MEYER, JOHN W ST. LOUIS METROP.	082	MILSTEAD, KENNETH L ST. LOUIS METROP.	190
MEDLER, JOHN F ST. LOUIS METROP.	190	MEYER, MELVIN E ST. LOUIS METROP.	190	MILSTER, CLYDE R ST. LOUIS METROP.	190
MEDLER, PAUL L ST. LOUIS METROP.	190	MEYER, PAUL W JACKSON	098	MILTENBERGER, PAUL C DUNKLIN	070
MEDLEY, BENJAMIN E JACKSON	098	MEYER, ROBERT D JACKSON	098	MINGS, WILLIAM W ST. LOUIS METROP.	190
MEDLICOTT, WILLIAM J JACKSON	098	MEYER, WAYNE W ST. LOUIS METROP.	190	MINNIGERODE, LANA K JACKSON	098
MEDRANO, CRESENCIANO A ST. LOUIS METROP.	190	MEYERS, ELISIE E ST. LOUIS METROP.	190	MINNIGERODE, TURNER L JACKSON	098
MEORANO, LINA E ST. LOUIS METROP.	190	MEYERS, JERRY R ST. CHARLES-LINCOLN	126	MINNIHAN, ROBT W ST. LOUIS METROP.	190
MEEGAN, ROBT J JACKSON	098	MEYERS, JOHN B ST. LOUIS METROP.	190	MINTON, ROBT S BUCHANAN	030
MEHAN, DONALD J ST. LOUIS METROP.	190	MEYERS, ROBT W ST. LOUIS METROP.	190	MIR, ABDUL R JACKSON	098
MEHR, OAVIO R BOONE	026	MEZERA, RAYMONO A ST. LOUIS METROP.	190	MIRBAHA, MITCHELL M ST. LOUIS METROP.	190
MEHRA, RAVINOER B ST. LOUIS METROP.	190	MEZOFF, JOHN M BOONE	026	MISCHNICK, CAROL R ST. LOUIS METROP.	190
MEHRA, S K ST. LOUIS METROP.	190	MICHAEL, HARVEY R GREENE COUNTY	082	MISHKIN, MARVIN R ST. LOUIS METROP.	190
MEHRA, USHA ST. LOUIS METROP.	190	MICHAEL, KENNETH D ST. LOUIS METROP.	190	MISKOVSKY, EMIL F ST. LOUIS METROP.	190
MEHTA, SATISH K JACKSON	098	MICHAEL, VERNON E ST. LOUIS METROP.	190	MISSEY, WILBURN C ST. LOUIS METROP.	190
MEHTAA, URMILA J CLAY	050	MICHAELREE, JOHN F ST. LOUIS METROP.	190	MISTRY, TEHMTON S ST. LOUIS METROP.	190
MEIER, FRANCIS X COLE	058	MICHAELS, ROBERT GREENE COUNTY	082	MITCHELL, ANDREW O JACKSON	098
MEIKLEJOHN, OUNCAN C JACKSON	098	MICIANO, RUEL T WEST CENTRAL	214	MITCHELL, EUGENE N ST. LOUIS METROP.	190
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MEINERS, PAUL N ST. LOUIS METROP.	190	MIDDLETON, JOHN W PIKE	186	MITCHELL, JOHN O JACKSON	098
MEINERS, THEODORE M ST. LOUIS METROP.	190	MIER, THOS M ST. LOUIS METROP.	190	MITCHELL, LYNN O BOONE	026
MEINERSHAGEN, CHAS W COLE	058	MIHALEVICH, JOHN A GREENE COUNTY	082	MITCHELL, ROBT H JACKSON	098
MELGAARD, SVEN R JACKSON	098	MIKHAIL, GIRGIS ST. LOUIS METROP.	190	MITCHELL, ROY E MIO-MISSOURI	182
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MEMULA, NARAYANAGODD BOONE	026	MILES, GEO O JACKSON	098	MIZELL, MYRON W GREENE COUNTY	082
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MENOELSON, OAVIO F ST. LOUIS METROP.	190	MILGRAM, BYRON A JACKSON	098	MOEN, BERWYN H BUCHANAN	030
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MENESES, ORLANDO G ST. LOUIS METROP.	190	MILLER, CLINT L JACKSON	098	MOLITOR, JEROME A ST. LOUIS METROP.	190
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MERENDA, SAM J ST. LOUIS METROP.	190	MILLER, GEOFFREY W ST. LOUIS METROP.	190	MONTA, MANDE D BUCHANAN	030
MERIDETH, MARY J OZARKS	166	MILLER, GERALD L JACKSON	098	MONTANI, CHAS ST. LOUIS METROP.	190
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MONTES DE OCA, JULIO ST. LOUIS METROP.	190	MOSELEY, FROERICK T GREENE COUNTY	082	MURPHY, WM A ST. LOUIS METROP.	190
MONTGOMERY, AUSTIN F ST. LOUIS METROP.	190	MOSELEY, OTIS O LAKE OF THE OZARKS	120	MURRAY, W L JACKSON	098
MONTIE, JOS E BOONE	026	MOSES, ROBT A ST. LOUIS METROP.	190	MUSCHANY, NORMAN K ST. LOUIS METROP.	190
MOOK, OAVID G JACKSON	098	MOSLEY, JULIAN C ST. LOUIS METROP.	190	MUSICH, THOMAS F ST. LOUIS METROP.	190
MOOLSINTONG, PORNCHAI ST. LOUIS METROP.	190	MOSQUERA, JAIME J ST. LOUIS METROP.	190	MUTCHNICK, NORMAN JACKSON	098
MOON, AGNES H BOONE	026	MOSS, PAUL JACKSON	098	MUTH, ROBT G JACKSON	098
MOON, THOS R ST. LOUIS METROP.	190	MOTHERSHEAO, JOHN L BUCHANAN	030	MYERS, ANDREW I JACKSON	098
MOONEY, JUSTIN L JACKSON	098	MOTZEL, ALBERT J ST. LOUIS METROP.	190	MYERS, CARL M CLAY	050
MOORE, ALVA ST. LOUIS METROP.	190	MOU, BIN WEST CENTRAL	214	MYERS, OAVIO W CLAY	050
MOORE, CANOICE A WEST CENTRAL	214	MOUNTFORD, OAMON W JACKSON	098	MYERS, GARY H ST. LOUIS METROP.	190
MOORE, OAVID L JACKSON	098	MOWREY, WM O ST. LOUIS METROP.	190	MYERS, GEO H JACKSON	098
MOORE, DE ARMOND GREENE COUNTY	082	MUAWAO, RAFIK D BUCHANAN	030	MYERS, IVAN T ST. LOUIS METROP.	190
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MOORE, HARRY G ST. LOUIS METROP.	190	MUCKERMAN, RICHARD C ST. LOUIS METROP.	190	MYERS, JOHN S JACKSON	098
MOORE, JACK D JACKSON	098	MUCKERMAN, RICHARD I ST. LOUIS METROP.	190	MYERS, ROBT M JACKSON	098
MOORE, JOHN M JACKSON	098	MUDD, J F ST. LOUIS METROP.	190	MYRON, MARK C JACKSON	098
MOORE, MICHAEL T WEST CENTRAL	214	MUELHEIMS, GERHARO H ST. LOUIS METROP.	190		
MOORE, WALTER L ST. LOUIS METROP.	190	MUELLER, ADOLPH R JASPER	102		
MOORE, Y. SCOTT JACKSON	098	MUELLER, CLARENCE E ST. LOUIS METROP.	190	NADINOLA, CHENNAIAH C AUORAIN	014
MORA, ALVARO ST. LOUIS METROP.	190	MUELLER, JOS A ST. LOUIS METROP.	190	NAGY, AL L B-W-R-C	034
MORAN, CHRISTOPHER J ST. LOUIS METROP.	190	MUELLER, MARTIN J JACKSON	098	NAHM, CHUNG C ST. LOUIS METROP.	190
MORAN, THOS M ST. LOUIS METROP.	190	MUELLER, MORRIS A ST. LOUIS METROP.	190	NAIOU, GONUGUNTIA ST. LOUIS METROP.	190
MORANVILLE, BENEDICT A BOONE	026	MUELLER, ROBT ST. LOUIS METROP.	190	NAIME, MANSOUR J JACKSON	098
MOREANO, ARMANDO H JACKSON	098	MUELLER, ROBT J ST. LOUIS METROP.	190	NAIR, K ST. LOUIS METROP.	190
MOREHEAD, WM E DUNKLIN	070	MUELLER, WILBUR K ST. LOUIS METROP.	190	NAKADA, JAMES R ST. LOUIS METROP.	190
MOREST, F S JACKSON	098	MUENCH, ALBERT H BUCHANAN	030	NALAGAN, MARCOS C ST. LOUIS METROP.	190
MORGAN, OAVIO B JACKSON	098	MUENCH, LAURENCE W JACKSON	098	NARAYAN, DILIP L ST. LOUIS METROP.	190
MORGAN, HARRY C ST. LOUIS METROP.	190	MUENSTER, VINCENT P ST. CHARLES-LINCOLN	126	NARKIEWICZ, LAWRENCE S ST. LOUIS METROP.	190
MORGAN, STEPHAN S ST. LOUIS METROP.	190	MUHAMMUO, FAQUIR ST. LOUIS METROP.	190	NARYKA, JOSEPH J ST. LOUIS METROP.	190
MORGAN, WILLY J. C. ST. LOUIS METROP.	190	MUHM, HARVARO Y ST. CHARLES-LINCOLN	126	NASEER, RIAZ A ST. LOUIS METROP.	190
MORGAN, WINFREY T SOUTH CENTRAL	206	MULES, JANET E JACKSON	098	NASH, HELEN E ST. LOUIS METROP.	190
MORGAN, WM R JACKSON	098	MULLARKY, WILBUR A ST. LOUIS METROP.	190	NASH, HOMER E ST. LOUIS METROP.	190
MORITZ, GERALD ST. LOUIS METROP.	190	MULLEN, CHRISTOPHER J JACKSON	098	NATHAN, LESTER J ST. LOUIS METROP.	190
MORLEY, LOUISE A JACKSON	098	MULLEN, JACK MINERAL AREA	138	NAVARRO, MANUEL I BOONE	026
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MORRIN, KEVIN ST. LOUIS METROP.	190	MULLEN, MARY E AUDRAIN	014	NEBLETT, LEWIS M GREENE COUNTY	082
MORRIS, ALAN D BOONE	026	MULLICAN, CHAS N BUCHANAN	030	NELSON, BENTLEY A JACKSON	098
MORRIS, ALAN H ST. LOUIS METROP.	190	MULLINS, BERNARD L CLAY	050	NELSON, DAVID E GREENE COUNTY	082
MORRIS, HARVEY E ST. LOUIS METROP.	190	MULLINS, JOHN E ST. LOUIS METROP.	190	NELSON, JAMES S ST. LOUIS METROP.	190
MORRIS, J H JACKSON	098	MUNDY, WM L JACKSON	098	NELSON, JOHN R ST. LOUIS METROP.	190
MORRIS, JOHN J BOONE	026	MUNSCH, ROBERT F ST. LOUIS METROP.	190	NEMEC, STANLEY S ST. LOUIS METROP.	190
MORRIS, MARY E ST. LOUIS METROP.	190	MUNYAN, EARL A JACKSON	098	*NEMER, ROBT J COLE	058
MORRIS, TERRY V JACKSON	098	MURAYWIO, AHMAO H AUDRAIN	014	NESS, CARL K BUCHANAN	030
MORRISON, ARLEN E ST. LOUIS METROP.	190	MURMANN, DON JACKSON	098	NESSERLODE, JOHN H JACKSON	098
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NEWMARK, LEONARD N ST. LOUIS METROP.	190	O'HEARNE, JOHN J JACKSON	098	OSBOURN, RICHARD A CALLAWAY	038
NEWPORT, GERALD ST. LOUIS METROP.	190	O'KEEFE, JOS D ST. LOUIS METROP.	190	OSKINS, PERRY B BOONE	026
NEWTON, GORDON ST. LOUIS METROP.	190	O'KEEFE, TIMOTHY F ST. LOUIS METROP.	190	OSSMAN, JULIAN A COLE	058
NEWTON, WM T ST. LOUIS METROP.	190	O'KELL, RICHARD T JACKSON	098	OST, MARK D JACKSON	098
NICHOLIS, GEORGE R JACKSON	098	O'MALLEY, JAMES F JACKSON	098	OSTAPOWICZ, FRANK ST. LOUIS METROP.	190
NICHOLS, WALTER K BOONE	026	O'NEAL, LAWRENCE W ST. LOUIS METROP.	190	OTRAKJI, JEAN JACKSON	098
NICKEL, JAMES F ST. LOUIS METROP.	190	O'NEAL, PATRICIA L ST. LOUIS METROP.	190	OTT, FLETCHER T ST. LOUIS METROP.	190
NICKELL, BARRY L JACKSON	098	O'NEIL, JAMES H JACKSON	098	OTT, HAROLD J ST. LOUIS METROP.	190
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NIELSON, MICHAEL H JACKSON	098	OAKLEY, MARGARET M ST. LOUIS METROP.	190	OTTOLINI, JAMES L ST. LOUIS METROP.	190
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NISHI, TOSHIO ST. LOUIS METROP.	190	OGLESBY, RICHARD B ST. LOUIS METROP.	190	OWENS, RICHARD L JACKSON	098
NIXON, EDWARD E GRAND RIVER	078	OGNYANOV, VOISLAV F ST. LOUIS METROP.	190	OWENS, ROBT H JACKSON	098
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NOLAN, CHAS J ST. LOUIS METROP.	190	OHLMS, DAVID L ST. LOUIS METROP.	190	OXENHANDLER, RONALD W BOONE	026
NOLLER, HENRY W ST. LOUIS METROP.	190	OHMOTO, MASAO ST. LOUIS METROP.	190	OXLEY, DWIGHT K JACKSON	098
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NOLPH, KARL D BOONE	026	OKAFOR, NATH C ST. LOUIS METROP.	190	OZAR, MILTON B JACKSON	098
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NUNEZ, MARIA A ST. LOUIS METROP.	190	ONG, ENG L ST. LOUIS METROP.	190	PADILLA, PEDRO C ST. LOUIS METROP.	190
NYE, ROBT S ST. LOUIS METROP.	190	ONG, OFELIA S ST. LOUIS METROP.	190	PADILLA, TERESITA C ST. LOUIS METROP.	190
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O'CONNOR, ROBT J ST. LOUIS METROP.	190	ORTBALS, DAVID W ST. LOUIS METROP.	190	PALCHEFF, CHRIS L GREENE COUNTY	082
O'CONNOR, WM B BUCHANAN	030	ORTH, OLIVER G BOONE	026	PALEN, JAMES E CAPE GIRARDEAU	042
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PALETTA, VICTOR L ST. LOUIS METROP.	190	PEARLMAN, MILTON II BOONE	026	PETRY, EZRA L JACKSON	098
PALMBERG, PAUL F ST. LOUIS METROP.	190	PEARMAN, CARL C BOONE	026	PFEFER, LELAND U BOONE	026
PALMER, JOHN O JACKSON	098	PEARSE, ROY W WEST CENTRAL	214	PFEFFER, ROBT I BUCHANAN	030
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PAROOS, GEORGE J ST. LOUIS METROP.	190	PEOEN, JOS C ST. LOUIS METROP.	190	PHILLIPS, ABRAHAM M ST. LOUIS METROP.	190
PARELMAN, ALLEN G JACKSON	098	PEEBLES, JONATHAN B ST. LOUIS METROP.	190	PHILLIPS, HANFORD ST. LOUIS METROP.	190
PARIKH, SHARAO P ST. LOUIS METROP.	190	PEETE, DON C JACKSON	098	PHILLIPS, JOHN J ST. LOUIS METROP.	190
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PARKER, THOS W ST. LOUIS METROP.	190	PENNOYER, JAMES ST. LOUIS METROP.	190	PICKENS, JAMES M BOONE	026
PARKER, WM ST. LOUIS METROP.	190	PEPPER, EDWARD G ST. LOUIS METROP.	190	PICKERING, LEE I JACKSON	098
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PARSONS, RICHARD P ST. LOUIS METROP.	190	PERLL, MAURICE F JACKSON	098	PIMENTEL, ESPERANZA M ST. LOUIS METROP.	190
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POTTS, DONALD A JACKSON	098	RACHLIN, MAXWELL ST. LOUIS METROP.	190	REDDY, RANGA V ST. LOUIS METROP.	190
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POWELL, EARL A ST. LOUIS METROP.	190	RADER, GEO B ST. LOUIS METROP.	190	REDINGTON, JAMES C ST. LOUIS METROP.	190
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POWELL, JOHN A ST. LOUIS METROP.	190	RAGLAND, JOHN E COLE	058	REEO, GLEN H WEST CENTRAL	214
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PRATHER, WILLIAM R CLAY	050	RAIKAR, SUDHIR R ST. LOUIS METROP.	190	REESE, A VICTOR ST. LOUIS METROP.	190
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REYNOLDS, JAMES O BOONE	026	ROBERTS, FROE F JACKSON	098	ROSENBERG, OVID S ST. LOUIS METROP.	190
REYNOLDS, M W JOHNSON	110	ROBERTS, GROSVENOR G JACKSON	098	ROSENBERG, ISAC JACKSON	098
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RHEE, SEOUNG E ST. LOUIS METROP.	190	ROBERTS, HAROLO M JACKSON	098	ROSENFELD, HENRY ST. LOUIS METROP.	190
RHOODES, ANDREW J JACKSON	098	ROBERTS, HOWARD H JASPER	102	ROSENHOLTZ, MITCHELL J BOONE	026
RIBAUDO, J M ST. LOUIS METROP.	190	ROBERTS, JOHN M BOONE	026	ROSENTHAL, IRWIN I BUCHANAN	030
RICCI, WALTER F JACKSON	098	ROBERTS, JOHN P ST. LOUIS METROP.	190	ROSENTHAL, RANDALL ST. LOUIS METROP.	190
RICE, BERNARD F JACKSON	098	ROBERTS, LAURETTA JACKSON	098	ROSS, GILBERT BOONE	026
RICE, KATHLEEN G GREENE COUNTY	082	ROBERTS, PAUL A PETTIS	178	ROSS, ROBERT M JACKSON	098
RICHARDS, FRANK O ST. LOUIS METROP.	190	ROBERTS, PERRY T CAPE GIRARDEAU	042	ROSS, WALTER R CLAY	050
RICHARDSON, GEO A FRANKLIN-GASCONADE-W	074	ROBERTS, PHYLLIS L BUCHANAN	030	ROSS, WM J ST. LOUIS METROP.	190
RICHARDSON, MARION W JACKSON	098	ROBERTSON, FRANK G ST. LOUIS METROP.	190	ROTER, ALEXANDER M ST. CHARLES-LINCOLN	126
RICHARSON, THOS F ST. LOUIS METROP.	190	ROBERTSON, WM D B-W-R-C	034	ROTH, ALFREO D JACKSON	098
RICHARDSON, WM R FRANKLIN-GASCONADE-W	074	ROBINETT, WADE V JACKSON	098	ROTH, JOHN J ST. LOUIS METROP.	190
RICHERT, ROBT C JACKSON	098	ROBINSON, ARTHUR W JACKSON	098	ROTHER, PAUL H ST. CHARLES-LINCOLN	126
RICHMAN, ELMER ST. LOUIS METROP.	190	ROBINSON, EDITH C ST. LOUIS METROP.	190	ROTHMAN, OAVID ST. LOUIS METROP.	190
RICHMONO, MICHAEL R ST. LOUIS METROP.	190	ROBINSON, ERNEST K JACKSON	098	ROTHWEILER, ROBT J ST. LOUIS METROP.	190
RIOENHOUR, CLARENCE C BOONE	026	ROBINSON, GARY L GREENE COUNTY	082	ROTSKOPF, KENNETH S ST. LOUIS METROP.	190
RIDGEWAY, WM G ST. LOUIS METROP.	190	ROBINSON, GEO G O-H-P-D	066	ROULHAC, GEO E ST. LOUIS METROP.	190
RIOINGS, G R CAPE GIRARDEAU	042	ROBINSON, RONALO L CAPE GIRARDEAU	042	ROUSE, ERNEST T ST. LOUIS METROP.	190
RIOINGS, HAROLO O CAPE GIRARDEAU	042	ROBINSON, VAN M CLAY	050	ROUSE, ERNEST T ST. LOUIS METROP.	190
RIEKHOF, PAUL L JACKSON	098	ROBINSON, WILLIAM A JACKSON	098	ROUSH, GEO ST. LOUIS METROP.	190
RIES, DOUGLAS A ST. LOUIS METROP.	190	ROBINSON, WM J JACKSON	098	ROXAS, GENEROSO P ST. CHARLES-LINCOLN	126
RIESENBERG, DONALD E GREENE COUNTY	082	ROBLEE, MELVIN A ST. LOUIS METROP.	190	ROY, JOS A ST. LOUIS METROP.	190
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		ROCKWELL, WAYNE L CLAY	050	ROYCE, ROBT K ST. LOUIS METROP.	190

ROYER, JERRY A DOONE	026	SALDANA, DAHLIA JACKSON	098	SCHAEFFER, EDWARD M GREENE COUNTY	082
ROYSE, ROY P FRANKLIN-GASCONADE-W	074	SALE, LLEWELLYN ST. LOUIS METROP.	190	SCHAEER, JACQUES P ST. LOUIS METROP.	190
ROYSTON, GRANOISON O ST. LOUIS METROP.	190	SALINAS, MARIO ST. LOUIS METROP.	190	SCHAEER, WM C JACKSON	098
ROZEN, JAY I JACKSON	098	SALMON, MICKEY L ST. LOUIS METROP.	190	SCHAIKER, BRUCE A ST. LOUIS METROP.	190
RUBENSTEIN, MELVIN ST. LOUIS METROP.	190	SAMET, JOHN M ST. LOUIS METROP.	190	SCHAPER, ERNEST H ST. LOUIS METROP.	190
RUBIN, HARVEY P JACKSON	098	SAMMON, THOS J GREENE COUNTY	082	SCHARF, DANIEL JACKSON	098
RUBIN, ROBT ST. LOUIS METROP.	190	SAMMONS, HARRY C ST. LOUIS METROP.	190	SCHECHESTER, SAML E ST. LOUIS METROP.	190
RUBNITZ, LEON H JACKSON	098	SAMPAT, PRAVIN JACKSON	098	SCHEELE, PAUL M ST. LOUIS METROP.	190
RUDI, HERBERT J ST. LOUIS METROP.	190	SAMSON, BARRY L ST. LOUIS METROP.	190	SCHEEER, GEORGE E ST. LOUIS METROP.	190
RUES, LAWRENCE A JACKSON	098	SAMUDRALA, RAMULU ST. LOUIS METROP.	190	SCHIEFF, HAROLD ST. LOUIS METROP.	190
RUFE, JOHN R JACKSON	098	SAMUELS, LAWRENCE E ST. LOUIS METROP.	190	SCHIEFF, ROBERT J ST. LOUIS METROP.	190
RUFF, PAUL G GREENE COUNTY	082	SAMUELSON, EDWARD A JACKSON	098	SCHIEBE, ROBT G ST. LOUIS METROP.	190
RUFF, T E B-W-R-C	034	SANCHEZ, ABELARDO B ST. LOUIS METROP.	190	SCHIEBLE, ROBERT F ST. LOUIS METROP.	190
RUGGLES, JAMES G ST. CHARLES-LINCOLN	126	SANDER, PAUL D BOONE	026	SCHILL, JAMES A ST. LOUIS METROP.	190
RUHLING, RUDY ST. LOUIS METROP.	190	SANDERS, DONALD C JACKSON	098	SCHENGBER, JOHN S ST. LOUIS METROP.	190
RUHMLT, MICHAEL ST. LOUIS METROP.	190	SANDERS, GEO E CLAY	050	SCHERR, OAVIO D COLE	058
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RUSAN, THOS E ST. LOUIS METROP.	190	SANDERS, HAROLD L BOONE	026	SCHWE, ELMER J BOONE	026
RUSSELL, BARBARA E MID-MISSOURI	182	SANDERS, JACK S COLE	058	SCHIERMAN, WM D ST. LOUIS METROP.	190
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RUSSELL, GARTH S BOONE	026	SANDERS, WM F JACKSON	098	SCHILLIE, GENE A JACKSON	098
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RUSSELL, JAMES L JACKSON	098	SANDOW, THEODORE L JACKSON	098	SCHLOZMAN, DANL L JACKSON	098
RUSSELL, ROBT K JACKSON	098	SANOZA, JOSEPH G ST. LOUIS METROP.	190	SCHLUER, ELMER P ST. LOUIS METROP.	190
RUTHERFORD, BARRY O JACKSON	098	SANEMAN, PAUL P JASPER	102	SCHMIOT, CHAS A FRANKLIN-GASCONADE-W	074
RUTLEDGE, JOHN F JEFFERSON	106	SANTANELLO, WILLIAM M ST. LOUIS METROP.	190	SCHMIOT, OENNIS A ST. LOUIS METROP.	190
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RYALL, JO-ELLYN M ST. LOUIS METROP.	190	SANTORO, CARLOS G JACKSON	098	SCHMIDT, EDWIN H ST. LOUIS METROP.	190
RYAN, DAVID GRANO RIVER	078	SANTOS-PARDO, LOURDES ST. LOUIS METROP.	190	SCHMIDT, EDWIN H ST. LOUIS METROP.	190
RYAN, JOHN B FRANKLIN-GASCONADE-W	074	SAPALA, JOSEPH C ST. LOUIS METROP.	190	SCHMIDT, HERBERT J JASPER	102
RYAN, JOHN H BUCHANAN	030	SAPIENTE, RONALD A ST. LOUIS METROP.	190	SCHMIDT, JEROME H COLE	058
RYAN, JOHN J ST. LOUIS METROP.	190	SARDJONO, HERMAN OZARKS	166	SCHMIEMEIER, ROY H ST. LOUIS METROP.	190
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RYAN, ROBERT A GREENE COUNTY	082	SARGENT, JOHN P SEMO	202	SCHNEIOER, THOS A ST. CHARLES-LINCOLN	126
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RYAN, THOMAS J COLE	058	SATO, GEO ST. LOUIS METROP.	190	SCHOEDINGER, GEORGE R ST. LOUIS METROP.	190
S		SAUER, DONALD C ST. LOUIS METROP.	190	SCHOENECKER, PERRY L ST. LOUIS METROP.	190
		SAUER, GORDON C JACKSON	098	SCHOENGARTH, LOWELL D BOONE	026
SAAB, SALIM B BOONE	026	SAUER, PAUL E GREENE COUNTY	082	SCHOENTAG, JOHN S ST. LOUIS METROP.	190
SABAPATHY, SHANMUGASUNOARA JASPER	102	SAUER, W N ST. LOUIS METROP.	190	SCHOKKER, JOHANNES COLE	058
SABATES, FELIX N JACKSON	098	SAUNDERS, CAROL S MIO-MISSOURI	182	SCHONFELD, GUSTAV ST. LOUIS METROP.	190
SABET, ABDOLLAH A ST. LOUIS METROP.	190	SAUNDERS, JOHN A MID-MISSOURI	182	SCHOOLMAN, ARNOLD JACKSON	098
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SADHU, VIJAY K BOONE	026	SAVCI, DOGAN H ST. LOUIS METROP.	190	SCHOTTMAN, GERHARD W JACKSON	098
SAFOAR, SHABBIR H ST. LOUIS METROP.	190	SAWYER, FLOYO E CLAY	050	SCHRAGE, JON P BOONE	026
SAFERSTEIN, A L JACKSON	098	SAWYER, JAMES ST. LOUIS METROP.	190	SCHRANCK, CHAS R ST. LOUIS METROP.	190
SAFFA, JAMES D ST. LOUIS METROP.	190	SCANLON, ROBT C GREENE COUNTY	082	SCHREIBER, DAVID J ST. LOUIS METROP.	190
SAFLEY, THOS J JACKSON	098	SCARATO, GARRY R ST. LOUIS METROP.	190	SCHREIBER, NORMAN J GREENE COUNTY	082
SAGHIR, MARCEL T ST. LOUIS METROP.	190	SCARBOROUGH, BETTY F JACKSON	098	*SCHROEDER, WALTER A ST. LOUIS METROP.	190
SAHA, NITAI C ST. LOUIS METROP.	190	SCARBOROUGH, MARK R JACKSON	098	SCHROFF, CARLE H GREENE COUNTY	082
SAHA, SUOHA R ST. LOUIS METROP.	190	SCEARCE, ROBERT L COLE	058	SCHUETZ, ALFRED ST. CHARLES-LINCOLN	126
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SALAOINO, ANTHONY JACKSON	098	SCHAEFER, BARRETT A ST. LOUIS METROP.	190	SCHULTE, GREGORY A JASPER	102
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SCHULTZ, GEORG C CAPE GIRARDEAU	042	SEXTON, OANL L ST. LOUIS METROP.	190	SHERMAN, DAVID BOONE	026
SCHULTZ, IRWIN ST. LOUIS METROP.	190	SEXTON, ELMER E ST. LOUIS METROP.	190	SHERMAN, NEAL J JACKSON	098
SCHULTZ, SAMUEL ST. LOUIS METROP.	190	SHACKTER, BRUCE I GREENE COUNTY	082	SHERMAN, PHILIP A LACLEDE	115
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SCHUMAN, NORVIN D JACKSON	098	SHAH, ANWAR ST. LOUIS METROP.	190	*SHERROD, GLENN M ST. LOUIS METROP.	190
SCHUTZ, CARL H JACKSON	098	SHAH, BHARAT K ST. LOUIS METROP.	190	SHERWIN, CHAS S ST. LOUIS METROP.	190
SCHUTZ, JOHN P CLAY	050	SHAH, DIPAK C JACKSON	098	SHEVLIN, CHAS F BUCHANAN	030
SCHUTZ, RICHARD B JACKSON	098	SHAH, JITENDRA ST. LOUIS METROP.	190	SHIEBER, WM ST. LOUIS METROP.	190
SCHWARTZ, EUGENE J GREENE COUNTY	082	SHAH, MODASER ST. LOUIS METROP.	190	SHIELDS, JOHN B ST. LOUIS METROP.	190
SCHWARTZ, HENRY G ST. LOUIS METROP.	190	SHAH, NAHEED F ST. LOUIS METROP.	190	SHIELDS, LAWRENCE S GREENE COUNTY	082
SCHWARTZ, HOWARD ST. LOUIS METROP.	190	SHAH, NARENDRA BUCHANAN	030	SHIFRIN, ALEXANDER JACKSON	098
SCHWARTZ, HOWARD I JACKSON	098	SHAHAN, PHILIP T ST. LOUIS METROP.	190	SHIN, DONG-SOO C-M-M-R	046
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SCHWARTZMAN, BERNARD ST. LOUIS METROP.	190	SHALEN, PHILIP R BOONE	026	SHOCKLEY, CLARENCE J JACKSON	098
SCHWARZ, EDWARD H ST. LOUIS METROP.	190	SHALET, MALCOLM F JACKSON	098	SHORT, CHARLES D ST. LOUIS METROP.	190
SCHWARZ, LUIS H ST. LOUIS METROP.	190	SHALLEY, JACK E JACKSON	098	SHOSS, MILTON CAPE GIRARDEAU	042
SCHWEGLER, ROBERT G JACKSON	098	SHAMSI, ZIA U ST. LOUIS METROP.	190	SHUEY, HERBERT H JACKSON	098
SCHWEISS, JOHN F ST. LOUIS METROP.	190	SHANAHAN, MARY P JASPER	102	SHUFF, PAUL D ST. LOUIS METROP.	190
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SCORSE, SIDNEY W JASPER	102	SHANER, THOS P ST. LOUIS METROP.	190	SHUMAN, JOS S ST. LOUIS METROP.	190
SCOTT, EARL D COLE	058	*SHANK, NEIL A JACKSON	098	SHUTER, ELI ST. LOUIS METROP.	190
SCOTT, ELWIN P ST. LOUIS METROP.	190	SHANK, ROBT E ST. LOUIS METROP.	190	SHYKEN, HERMAN ST. LOUIS METROP.	190
SCOTT, HORACE W ST. LOUIS METROP.	190	SHANKER, STUART G JACKSON	098	SICAT, ALFONSO V JOHNSON	110
SCOTT, JOHN E JACKSON	098	SHAPERO, JAMES A BOONE	026	SICAT, LUZVIMINDA F JACKSON	098
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SCRUGGS, KAREN L ST. LOUIS METROP.	190	SHARMA, JANARDANA N JACKSON	098	SIDDQUI, JAWED H ST. LOUIS METROP.	190
SEABAUGH, L R CAPE GIRARDEAU	042	SHARMA, VIDYA JACKSON	098	SIDDQUI, M Y ST. LOUIS METROP.	190
SEABAUGH, OTTIS D ST. LOUIS METROP.	190	SHARP, AUSTIN R ST. LOUIS METROP.	190	SIDES, STANLEY D CAPE GIRARDEAU	042
SEABAUGH, WM O CAPE GIRARDEAU	042	SHATZ, BURTON A ST. LOUIS METROP.	190	SIEGEL, CARL D JACKSON	098
SEE, WM B BOONE	026	SHATZ, GERALD S ST. LOUIS METROP.	190	SIEGEL, CHARLES JACKSON	098
SEED, JOHN ST. LOUIS METROP.	190	SHATZ, RICHARD N ST. LOUIS METROP.	190	SIEGFRIED, BARRY ST. LOUIS METROP.	190
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SEGRIST, KAREN L ST. LOUIS METROP.	190	SHAW, RICHARD C ST. LOUIS METROP.	190	SIGMUND, CHAS A ST. LOUIS METROP.	190
SEIB, GEO A ST. LOUIS METROP.	190	SHAW, ROBERT D ST. LOUIS METROP.	190	SIGNORELLI, ANDREW J ST. LOUIS METROP.	190
SEIDEN, GERALD D JACKSON	098	SHAW, WM J HOWARD	094	SILBER, SHERMAN J ST. LOUIS METROP.	190
SEITZ, ELSON F JACKSON	098	SHEA, JAMES G FRANKLIN-GASCONADE-W	074	*SILL, WILLIAM ST. CHARLES-LINCOLN	126
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SELVADURAI, PAUL N ST. LOUIS METROP.	190	SHEAHON, JOHN A JACKSON	098	SILSBY, OON J GREENE COUNTY	082
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SENTURIA, BEN H ST. LOUIS METROP.	190	SHEEHAN, MICHAEL B JACKSON	098	SILVER, BERND ST. LOUIS METROP.	190
SENTURIA, HYMAN R ST. LOUIS METROP.	190	SHEEHAN, PAUL J ST. LOUIS METROP.	190	SILVER, DONALD BOONE	026
SERTL, GEORGE O ST. LOUIS METROP.	190	SHEFFNER, PAUL W ST. LOUIS METROP.	190	SILVERBERG, CHAS ST. LOUIS METROP.	190
SERTL, JAMES F ST. LOUIS METROP.	190	SHELDEN, RUSSELL D JACKSON	098	SILVERMINTZ, SAUL D ST. LOUIS METROP.	190
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		SHEN, JEROME T ST. LOUIS METROP.	190	SIMON, GRACITA S CLAY	050

SIMON, NATHAN M ST. LOUIS METROP.	190	SMITH, CARLIE B GREENE COUNTY	082	SOPER, WM D CLAY	050
SIMON, SANFORD JACKSON	098	*SMITH, CHAS H CLAY	050	SOPUCH, JOHN A ST. LOUIS METROP.	190
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SIMPELO, RUSTICO V MINERAL AREA	138	SMITH, ELBERT E JACKSON	098	SOSNA, JACOB P ST. LOUIS METROP.	190
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SIMRIL, WAYNE A ST. LOUIS METROP.	190	SMITH, HUBERT E JACKSON	098	SPAFFORD, ALLEN L JACKSON	098
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SINCLAIR, RICHARD H JACKSON	098	SMITH, JAMES B ST. LOUIS METROP.	190	SPALDING, WILBER B JACKSON	098
SINCOX, CHAS H FRANKLIN-GASCONADE-W	074	SMITH, JAMES O HENRY COUNTY	086	SPALDING, WILBER B CLINTON	054
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SINGH, GURCHARAN J ST. LOUIS METROP.	190	SMITH, JOE R BOONE	026	SPARKMAN, THOMAS C CAPE GIRARDEAU	042
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SINGLETON, JOHN M JACKSON	098	SMITH, KATHLEEN ST. LOUIS METROP.	190	SPENCE, PAUL A CAPE GIRARDEAU	042
SINGLETON, MARVIN A JASPER	102	SMITH, KENNETH R ST. LOUIS METROP.	190	SPENCER, DONALD M JACKSON	098
SINGSSEN, BERNHARD H BOONE	026	SMITH, KEVIN B ST. LOUIS METROP.	190	SPENO, ANGELO A ST. LOUIS METROP.	190
SINNETT, MARK F JACKSON	098	SMITH, MORTON E ST. LOUIS METROP.	190	SPIES, BARBARA J JACKSON	098
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OSKINS, PERRY B PATHOLOGY DEPT UMMC COLUMBIA, MO 65201	PTH	SANDER, PAUL D W350 DEPT. ANES 807 STADIUM RD. COLUMBIA, MO 65201	AN	THOMAS, ROBERT M 3205 LANSING AVE AT KEE COLUMBIA, MO 65201	OTO
OVERHOLSER, MILTON D 807 STADIUM ROAD COLUMBIA, MO 65201	OS	SANDERS, HAROLD L 1502 E BROADWAY COLUMBIA, MO 65201	DR	TINSLEY, JOHN C 16 S 10TH ST COLUMBIA, MO 65201	IM
OXENHANDLER, RONALD W M-646 MEDICAL SCIENCE B COLUMBIA, MO 65201	PTH	SANDOCK, KENNETH N217 MED-SCI UNIV OF MISSOURI HOS COLUMBIA, MO 65201	NM	TRUMBOWER, WM D 309 MANOR DRIVE COLUMBIA, MO 65201	OBG
PARKER, BRENT M DIRECTORS OFFICE 807 STADIUM COLUMBIA, MO 65201	CD	SCHWE, ELMER J 3205 LANSING COLUMBIA, MO 65201	GS	TULLY, RICHARD J 807 STADIUM RD COLUMBIA, MO 65201	DR
PARRAGA, HUMBERTO C 2110 WOODLEA DR. COLUMBIA, MO 65201	CHP	SCHOENGARTH, LOWELL D PROFESSIONAL BLDG. COLUMBIA, MO 65201	OPH	VAN DERVOORT, ROBT L 401 KEENE ST COLUMBIA, MO 65201	PD
PAYNE, DAVID E 1901 RIDGEMONT COLUMBIA, MO 65201	D	SCHRAGE, JON P M-749 UNIVERSITY MO MED COLUMBIA, MO 65201	IM	VAN STONE, JOHN C TD 4-E UNIV OF MO MED CTR COLUMBIA, MO 65201	IM
PAYNE, JOHN W 3205 LANSING AVE COLUMBIA, MO 65201	ORS	SEE, WM 8 1611 UNIVERSITY AVE. COLUMBIA, MO 65201	OBG	VISOT, LUIS R RUSK REHAB. CTR. COLUMBIA, MO 65201	PM
PEARLMAN, MILTON H UNIV. OF MO., MED. CTR. COLUMBIA, MO 65201	OTO	SHAHEEN, ELEANOR UNIV MO MED CTR-PED DPT COLUMBIA, MO 65201	PD	VOGEL, CURT W 3707 WOODRIDGE CT COLUMBIA, MO 65201	GS
		SHALEN, PHILIP R 1502 E BROADWAY COLUMBIA, MO 65201	R	VU, LIEM C UNIV. OF MO. MED. CTR. DEPT. OF PATH. COLUMBIA, MO 65201	PTH

WAGGONER, CHAS M 201 W BROADWAY COLUMBIA, MO 65201	R	BRISTOW, ROBT B 416 N 7TH ST JOSEPH, MO 64501	U	HOWDEN, THOS L 2723 FRANCIS ST ST JOSEPH, MO 64501	IM
WAKERLIN, GEO E 231 EL BONITO WAY MILLBRAE, CA 94030	US	BROWN, MERLIN D 510 FRANCIS PIONEER BLDG SUITE 2 ST JOSEPH, MO 64501	FP	HUGHES, JUDSON M 3306 JENNIFER LANE ST JOSEPH, MO 64506	OM
WALTERS, LAURA 1027 HICKORY HILL DR. COLUMBIA, MO 65201	D	BRYANT, SYDNEY L 902 EDMOND ST ST JOSEPH, MO 64502	IM	IDE, LUCIEN W 902 EDMOND AVE ST JOSEPH, MO 64502	IM
WATSON, TREVOR F 1504 E BROADWAY COLUMBIA, MO 65201	OBG	BUTLER, ELZA F 902 EDMOND ST ST JOSEPH, MO 64502	OM	INOCENCIO, EDDIE C 3201 C ASHLAND AVE. ST JOSEPH, MO 64506	OTO
WATTS, CLARK C 807 STADIUM COLUMBIA, MO 65201	NS	CARPENTER, GEO T 902 EDMOND ST ST JOSEPH, MO 64502	IM	*JACKS, RICHARD K P. O. BOX 263 ST. JOSEPH, MO 64502	P
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WEINSTEIN, STEPHEN H DEPT. OF SURGERY UNIV. OF MO. MED CTR. COLUMBIA, MO 65212	U	CHALLENGER, WM A 902 EDMOND ST ST JOSEPH, MO 64502	IM	KIRUBAKARAN, VELLORE R P. O. BOX 263 ST. JOSEPH, MO 64502	P
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ANDRES, EDWARD H 902 EDMOND ST JOSEPH, MO 64502	GS	GRANT, CLAUDE S 2726 SUBLETTE WAY ST JOSEPH, MO 64506	GP	MORSE, JOHN P 514 FRANCIS ST. JOSEPH, MO 64501	ORS
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BARTULICA, NICHOLAS 3400 FREDERICK ST JOSEPH, MO 64502	P	HANDLER, ERIC KIRKPATRICK BLDG ST JOSEPH, MO 64501	GP	MUAWWAD, RAFIK D 1335 VILLAGE DR. ST. JOSEPH, MO 64506	ORS
BECK, PAUL W 409 KIRKPATRICK BLDG ST JOSEPH, MO 64501	OPH	HARNER, CASPER G 902 EDMOND ST ST JOSEPH, MO 64502	D	MUENCH, ALBERT H 412 N 25TH ST JOSEPH, MO 64501	PH
BEHELER, EDWARD M 422 N 7TH ST ST JOSEPH, MO 64501	GS	HAYES, PAUL W 610 N NOYES BLVD ST JOSEPH, MO 64506	P	MULLICAN, CHAS N 510 FRANCIS ST SUITE 324 ST JOSEPH, MO 64501	IM
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PFEFFER, ROBT I 8581 CODY AVE. WESTMINSTER, CA 92683	OBG	BIGGS, FRED J 808 N MAIN ST POPLAR BLUFF, MO 63901	GP	LOUGHEAD, JOHN R 1201 LURLYN AVE POPLAR BLUFF, MO 63901	OTO
PIFER, LAWRENCE H 925 5TH AVE ST JOSEPH, MO 64505	GP	BROOKKRESON, ALTON D #1 HONEYSUCKLE LANE POPLAR BLUFF, MO 63901	FP	MACAULEY, BERNARD J P O BOX 238 DONIPHAN, MO 63935	OPH
POTTER, CARYL A 324 PIONEER BLDG ST JOSEPH, MO 64501	IM	CALDWELL, FRED KNEIBERT CLINIC POPLAR BLUFF, MO 63901	FP	MADDURI, ARUNA D 666 LESTER POPLAR BLUFF, MO 63901	OBG
PROKOP, JOS R 29 STONECREST ST JOSEPH, MO 64506	PD	CAMP, RICHARD V 111 ASH ST CAMPBELL, MO 63933	FP	MADDURI, SIVAPRASAD D 666 LESTER POPLAR BLUFF, MO 63901	U
RAPHEL, JOSE 1111 N 49TH TERR ST JOSEPH, MO 64506	GP	CANLAS, EMILIO M P O BOX 1009 POPLAR BLUFF, MO 63901	R	MASSEY, WARNER B 1980 N WESTWOOD POPLAR BLUFF, MO 63901	PTH
REDMOND, WM S CORBY BLDG ST JOSEPH, MO 64501	GP	CARLSON, ELMER C 623 PINE ST POPLAR BLUFF, MO 63901	OBG	MATHEY, JOSEPH W 330 N SECOND POPLAR BLUFF, MO 63901	FP
ROBERTS, PHYLLIS L 2607 CORNELL AVE ST JOSEPH, MO 64506	PD	CHAND, NAZAR 666 LESTER POPLAR BLUFF, MO 63901	PD	MAY, ALBERT L 330 N 2ND ST POPLAR BLUFF, MO 63901	GS
ROGERS, JOHN T 2502 ASHLAND AVE ST JOSEPH, MO 64506	GP	CHRISTY, JOHN P 666 LESTER ST POPLAR BLUFF, MO 63901	GS	MC ANELLY, GEORGE C A 400 SOUTH 11TH STREET POPLAR BLUFF, MO 63901	U
ROSENTHAL, IRWIN I ST JOSEPH STATE HOSP BOX 263 ST JOSEPH, MO 64502	GP	CHUNG, TAI-YONG HENRICKSON CLINIC 217 OAK POPLAR BLUFF, MO 63901	GS	MC LANE, JERRY F OAKHAVEN WOMEN'S CLINIC 1111 MANSION MALL DR POPLAR BLUFF, MO 63901	OBG
RYAN, JOHN H 2901 LOVER LN ST JOSEPH, MO 64506	GS	CONGER, WILLIAM R KNEIBERT CLINIC LESTER STREET POPLAR BLUFF, MO 63901	FP	MILLER, DAVID V KNEIBERT CLINIC POPLAR BLUFF, MO 63901	IM
SHAH, NARENDRA THOMPSON BRUMM & KNEPPE 902 EDMOND ST ST JOSEPH, MO 64502	AN	DEMEO, ROBERT R 2020 SNIDER RD. POPLAR BLUFF, MO 63901	OPH	NAGY, AL L RT. 1, BOX 108 POPLAR BLUFF, MO 63901	P
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SILLIMAN, YORK E 2715 FRANCIS ST JOSEPH, MO 64501	PTH	DUSING, REGINALD W MCPHEETERS CLINIC POPLAR BLUFF, MO 63901	FP	PLUNKETT, LITTLETON J 330 N 2ND STREET POPLAR BLUFF, MO 63901	FP
SKLENAR, DONALD E 228 ILLINOIS ST. JOSEPH, MO 64504	FP	ENGELHARDT, ROBT C KNEIBERT CLINIC POPLAR BLUFF, MO 63901	AN	RAMIREZ, RICARDO M KNEIBERT CLINIC POPLAR BLUFF, MO 63901	PTH
SPURGAT, ROBERT M 510 FRANCIS ST ST JOSEPH, MO 64501	PUD	ESPINOSA, TOMAS KNEIBERT CLINIC POPLAR BLUFF, MO 63901	P	REDDY, ABBIAH N 666 LESTER ST POPLAR BLUFF, MO 63901	U
STALLARD, DONALD J 902 EDMOND ST ST JOSEPH, MO 64502	IM	FARIES, JAMES L SR#1 WILLIAMSVILLE, MO 63967	R	REDDY, SARVOTHAM K 666 LESTER ST POPLAR BLUFF, MO 63901	GS
STEVENS, EDWARD M 702 JULE ST JOSEPH, MO 64504	DR	FARRIS, LARRY 1980 NO. WESTWOOD POPLAR BLUFF, MO 63901	CLP	ROBERTSON, WM D MC PHEETERS CLINIC POPLAR BLUFF, MO 63901	GP
STUBER, ROBT R 900 N BELT HWY ST JOSEPH, MO 64506	CD	FRASER, RICHARD A 621 PINE ST POPLAR BLUFF, MO 63901	IM	RUFF, T E 1411 ROSEDALE POPLAR BLUFF, MO 63901	U
THOMPSON, FREDERICK G 2714 ASHLAND AVE ST JOSEPH, MO 64506	PD	FRISCH, HOWARD V 666 LESTER POPLAR BLUFF, MO 63901	PTH	SPARGER, CHARLES F HENRICKSON CLINIC BLDG 217 OAK ST POPLAR BLUFF, MO 63901	TS
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WHITSELL, ORA E 802 N 23RD ST ST JOSEPH, MO 64506	OPH	HOJA, WITOLD A 1111 MANSION MALL DR POPLAR BLUFF, MO 63901	OBG	TURNER, KIRBY L 623 PINE POPLAR BLUFF, MO 63901	FP
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WOLANSKI, EUGENE G 902 EDMOND ST ST JOSEPH, MO 64502	IM	LAATSCH, ROBT H 1333 MEADOW LN POPLAR BLUFF, MO 63901	FP	WOODSON, WILLIAM H VA MED. CTR. POPLAR BLUFF, MO 63901	ORS
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35 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
HONAAS, TRYGVE O
937 BROADWAY
CAPE GIRARDEAU, MO 63701
HORN, PAUL C
1909 HUNTINGTON
CAPE GIRARDEAU, MO 63701
HUNT, ROBERT S
10 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
JAEGER, JOS N
STATE HWY D
JACKSON, MO 63755
JOHNSON, E D
937 BROADWAY
CAPE GIRARDEAU, MO 63701
JOHNSON, EARL W
937 BROADWAY
CAPE GIRARDEAU, MO 63701
JONES, DAVID N
BOX 127
CAPE GIRARDEAU, MO 63701
JORGENSEN, JAMES P
NO. 30 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
JUNG, CHRISTOPHER H
35 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
JUNG, J M
21 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
KASTEN, MELVIN C
10 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
*KASUKONIS, JOHN E
P. O. BOX 236
RR #1
LUTESVILLE, MO 63762
KEIM, J H
1845 WOODLAWN
CAPE GIRARDEAU, MO 63701
KINDER, JAMES A
937 BROADWAY
CAPE GIRARDEAU, MO 63701
KINDER, JERRY L
10 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
KOLDYS, KENNETH W
35 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
KRATZ, PAUL E
2560 GORDONVILLE RD
CAPE GIRARDEAU, MO 63701
LOVINGGOOD, THOS A
6-1 DOCTORS PARK
CAPE GIRARDEAU, MO 63701

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LYSKOWSKI, MARIA M
2301 BELLERIDGE DR.
WOODLAND HILLS
CAPE GIRARDEAU, MO 63701
MAGALETTA, GEO E
937 BROADWAY
CAPE GIRARDEAU, MO 63701
MANGUNTA, VIJAYA K
BOX 534K ROUTE 2
CAPE GIRARDEAU, MO 63701
MARIETTA, WILLIAM G
NO. 25 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
MARTIN, RICHARD A
NO. 1 DRS. PARK
CAPE GIRARDEAU, MO 63701
MC DONALD, EUGENE F
930 JACKSON TRAIL
JACKSON, MO 63755
MC GINTY, CHAS P
10 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
OEHLER, WILLIAM F
213 N SPRIGG ST
CAPE GIRARDEAU, MO 63701
OTTO, THOMAS G
#4B DOCTORS' PARK
CAPE GIRARDEAU, MO 63701
PALEN, JAMES E
15 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
PARSONS, D L
35 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
RAPP, HAROLD B
937 BROADWAY
CAPE GIRARDEAU, MO 63701
RAWLINS, FRED E
1912 BROADWAY
CAPE GIRARDEAU, MO 63701
REDDI, RAGHUNATH
937 BROADWAY
CAPE GIRARDEAU, MO 63701
RIDINGS, G R
937 BROADWAY
CAPE GIRARDEAU, MO 63701
RIDINGS, HAROLD D
937 BROADWAY
CAPE GIRARDEAU, MO 63701
RINGER, CARL N
2022 ALLEN DR.
CAPE GIRARDEAU, MO 63701
RITTER, C J
14 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
RITTER, CARL F
937 BROADWAY
CAPE GIRARDEAU, MO 63701
RITTER, RAY A JR
#4B DOCTORS' PARK
CAPE GIRARDEAU, MO 63701
RITTER, RAYMOND A SR
2542 ALLENDALE DR
CAPE GIRARDEAU, MO 63701
ROBERTS, PERRY T
8 DOCTOR'S PARK
CAPE GIRARDEAU, MO 63701
ROBINSON, RONALD L
1117 PATRICIA
CAPE GIRARDEAU, MO 63701
SCHULTZ, GEORG C
402 N. SUNSET BLVD.
CAPE GIRARDEAU, MO 63701
SEABAUGH, L R
19 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
SEABAUGH, WM O
24 N SPRIGG ST
CAPE GIRARDEAU, MO 63701
SHOSS, MILTON
937 BROADWAY
CAPE GIRARDEAU, MO 63701
SIDES, STANLEY D
14 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
SPARKMAN, THOMAS C
15 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
SPENCE, PAUL A
35 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
TALBERT, CLIFFORD R
25 DOCTORS' PARK
CAPE GIRARDEAU, MO 63701
TERRY, JAMES W
18 DOCTORS PARK
CAPE GIRARDEAU, MO 63701
TRUEBLOOD, MICHAEL C
#48 DOCTORS' PARK
CAPE GIRARDEAU, MO 63701
TYGETT, JOS N
17 DOCTORS PARK
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CAPE GIRARDEAU, MO 63701
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714 BROADWAY
CAPE GIRARDEAU, MO 63701
WOLFF, PAUL G
1819 BROADWAY
CAPE GIRARDEAU, MO 63701
ZOFFUTO, ANTHONY C
14 DR S PARK
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FLEMING, THOS S
517 FORT ST
MOBERLY, MO 65270
HUBER, LASLEY E
107 BRINKERHOFF
MOBERLY, MO 65270
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P.O. BOX 143
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LIN, H T
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APT 201
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3D9 N ROLLINS
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BRUNSWICK, MO 65236
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423 E LOGAN
MOBERLY, MO 65270

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WESTOWNE IV
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5800 N GRAND AVE
KANSAS CITY, MO 64118
AN BOWLES, RICHARD P
114 N WATER ST
LIBERTY, MO 64068
PD BOWNIK, THEODORE B
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GP BOWSER, ROBERT L
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GP BRILL, JOACHIM R
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PD *BUCK, FREDERICK A
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KANSAS CITY, MO 64116
A BURK, EMMETT K
WESTOWNE III
LIBERTY, MO 64068
FP BURROUGHS, NATHAN D
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NORTH KANSAS CI, MO 64116
GP CALHOUN, TERRY L
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GP CASHIER, DWIGHT
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IM CASTILLO, MICHAEL E
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LIBERTY, MO 64068
CD CHATKUP, SUTHON
1205 N JESSE JAMES RD
EXCELSIOR SPRIN, MO 64024
GP CHILES, DAVID R
620 COMMERCIAL AVE
SMITHVILLE, MO 64089
GP COOK, JERRY W
7010 N CHERRY
KANSAS CITY, MO 64118
IM COOPER, BARRY R
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NORTH KANSAS CI, MO 64116
AN COOPER, GARY D
SUITE 100 WESTOWNE III
LIBERTY, MO 64068
OBG CSAKI, BELA
WESTOWNE IV SUITE 205
LIBERTY, MO 64068
IM CURNOW, RICHARD B
WESTOWNE OFFICES
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KANSAS CITY, MO 64119
GS DELIGEORGES, JOHN
7010 N CHERRY
KANSAS CITY, MO 64118
GP DENTON, ROBT E
SMITHVILLE CLINIC BOX E
SMITHVILLE, MO 64D89
GP DERNONCOURT, JOHN E
SMITHVILLE CLINIC
SMITHVILLE, MO 64D89
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ST. JOHN'S MED CTR.
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10106 NW 74TH ST
KANSAS CITY, MO 64152
PTH EDWARDS, THEODORE F
2029 BURLINGTON AVE
NORTH KANSAS CI, MO 64116
GP FAKHOURY, DONALD A
4030 N OAK ST TRAFFICWA
KANSAS CITY, MO 64116
FISCHER, EDWARD H
2929 BALTIMORE
KANSAS CITY, MO 64108

U FISCHER, JOSE M
2900 HOSPITAL DRIVE
KANSAS CITY, MO 64116
R FLANDERS, VIRGIL E
5601 N. E. ANTIOCH RD.
KANSAS CITY, MO 64119
IM FORTIN, DON G
2900 N.E. 60TH ST.
SUITE 204
KANSAS CITY, MO 64068
PUD FOWLER, I C
631 FT. DUQUESNA DR.
SUN CITY CENTER, FL 33570
CD GALBOL, HARLEY I
522 ELMS BLVD
EXCELSIOR SPRIN, MO 64024
IM GAUER, ROBT J
5601 ANTIOCH RD
KANSAS CITY, MO 64119
OM GERAGHTY, THOMAS E
2900 NE 60TH ST.
KANSAS CITY, MO 64119
FP GUKHOOL, PREMLALL
2525 GLENN HENDREN DR
LIBERTY, MO 64068
IM HAAS, ROBERT W
SUITE R WESTOWNE OFFICE
LIBERTY, MO 64068
AN HAGAN, JOHN C
2700 HOSPITAL DR
NO KANSAS CITY, MO 64116
PD HALEY, TED M
405 E 19TH AVE
KANSAS CITY, MO 64116
PD HARVEY, THOMAS S
540 MAIN
WESTON, MO 64098
GS HAYES, LAWRENCE L
8630 N OAK ST TRFWY
KANSAS CITY, MO 64155
IM HEDGES, RICHARD C
2025 SWIFT
NORTH KANSAS CI, MO 64116
PS HEIM, MARY L
8600 N.W. 64TH ST.
PARKVILLE, MO 64152
IM HENDREN, THOS H
WESTOWNE III STE 101
LIBERTY, MO 64068
GP HENRY, JOS E
2700 HOSPITAL DR
NORTH KANSAS CI, MO 64116
OPH HERTENSTEIN, JOHN R
WESTOWNE III, SUITE 102
LIBERTY, MO 64D68
GS HODGE, ROBT H
2204 NE 39TH ST
KANSAS CITY, MO 64116
GP ISE, FRANK H
2030 SWIFT AVE
NORTH KANSAS CI, MO 64116
OPH KATF, NICOLA Y
2800 HOSPITAL DR
KANSAS CITY, MO 64116
DR KAUK, BRUCE A
2029 BURLINGTON
NO. KANSAS CITY, MO 64116
GE KELLY, JOSEPH G
P O BOX 295
LIBERTY, MO 64068
GS KUENZLI, DONALD E
8630 N OAK TRFWY
KANSAS CITY, MO 64155
ORS *LANDERS, GARY A
2800 HOSP DR
NO. KANSAS CITY, MO 64116
GP LATIMER, WALTER N
514D NE ANTIOCH RD
KANSAS CITY, MO 64119
OPH LERNER, SCOTT A
270D HOSPITAL DR
#410
N KANSAS CITY, MO 64116
GS LESLIE, STEPHEN A
2700 HOSPITAL DR
NO. KANSAS CITY, MO 64116
GP LILA, ARAM
1205 N JESSE JAMES RD
EXCELSIOR SPGS., MO 64024
OTO LITTLEJOHN, ROBERT T
2700 HOSPITAL DR
NO. KANSAS CITY, MO 64116
PTH LLANES-RODAS, RIZALINA
2700 HOSPITAL DR
KANSAS CITY, MO 64116
GP MC CALLA, JOHN P
649 HUNTINGTON RD
KANSAS CITY, MO 64113
NS MC CLUGGAGE, NEWTON C
2700 HOSPITAL DR
NO. KANSAS CITY, MO 64116
PD MC CORMICK, JAMES E
4030 N OAK ST
KANSAS CITY, MO 64116
GP MC CRAY, STEPHEN A
2900 N.E. 60TH ST.
KANSAS CITY, MO 64119
CD MC PHEE, WM R
1205 W 76TH ST
KANSAS CITY, MO 64114

MEHTAA, URMILA J P. O. BOX 295 LIBERTY, MO 64068	AN	TRUE, JAMES D TRI-CNT COM MNT HLTH CT 2900 HOSPITAL DR KANSAS CITY, MO 64116	US	CLARK, KENDALL A RT 4 BOX 421 FULTON, MO 65251	GE
MULLINS, BERNARD L 405 E 19TH ST NO. KANSAS CITY, MO 64116	GP	TUMANUT, BENESTO F 5601 N ANTIOCH RD KANSAS CITY, MO 64119	OTO	COOPER, CHAS W 423 CHERRY ST JEFFERSON CITY, MO 65101	FP
MYERS, CARL M PLATTE MEDICAL CLINIC P O BOX 990 PLATTE CITY, MO 64079	FP	UNDERWOOD, JOHNSON 5140 N E ANTIOCH RD KANSAS CITY, MO 64119	GS	COURTER, LARRY P 1505 S W BLVD JEFFERSON CITY, MO 65101	R
MYERS, DAVID W 610 S COMMERCIAL AVE SMITHVILLE, MO 64089	OBG	VILMER, CHARLES E 2030 SWIFT AVE NORTH KANSAS CI, MO 64116	ORS	COX, CURTIS S 1433 SOUTHWEST BLVD. JEFFERSON CITY, MO 65101	NS
NOURBAKHSH, MAHMOUD M 405 E 19TH AVE NO. KANSAS CITY, MO 64116	GS	VILMER, STEPHEN E 2030 SWIFT NORTH KANSAS CI, MO 64116	ORS	COX, WM A 812 SWIFTS HIGHWAY JEFFERSON CITY, MO 65101	FP
*OLMSTEAD, JOHN P 2025 SWIFT NO. KANSAS CITY, MO 64116	OM	WALD, DONALD M 1608 N E 69TH ST KANSAS CITY, MO 64118	R	DAVISSON, WALTER F 611 WEST ELM JEFFERSON CITY, MO 65101	OPH
PATTERSON, CARROLL D SUITE 202 WESTOWNE IV LIBERTY, MO 64068	P	WALTZ, JAMES R WESTOWNE III SUITE 101 LIBERTY, MO 64068	GS	DOERHOFF, ADELIA L 1111 MADISON JEFFERSON CITY, MO 65101	AN
PILEGGI, FELIX A 405 E 19TH ST NO. KANSAS CITY, MO 64116	GP	WATERMAN, FRANKLIN M 101 W KANSAS LIBERTY, MO 64068	GP	DOERHOFF, ALAN R 1111 MADISON JEFFERSON CITY, MO 65101	GS
PINGLETON, WILLIAM W 410 PROFESSIONAL BLDG N 2700 HOSPITAL DR KANSAS CITY, MO 64116	PUD	WEBB, JOHN M 525 PROFESSIONAL BLDG N 2700 HOSPITAL DR KANSAS CITY, MO 64116	GS	EXON, C S 1505 SOUTHWEST BLVD JEFFERSON CITY, MO 65101	GS
PIONTEK, JAMES F BOX 295 LIBERTY, MO 64068	AN	WEIDE, ALLAN R 2700 HOSPITAL DR NORTH KANSAS CI, MO 64116	U	FALZONE, JOHN J 824 SOUTHWEST BLVD UROLOGY CARE INC JEFFERSON CITY, MO 65101	U
PRATHER, WILLIAM R 2029 BURLINGTON NO. KANSAS CITY, MO 64116	IM	WERNER, DEAN F 2025 SWIFT AVE NORTH KANSAS CI, MO 64116	OM	FILES, JAMES B SHAMROCK ROAD NORTH STAR ROUTE 2 JEFFERSON CITY, MO 65101	PTH
PURCELL, PAUL W P O BOX D-2 SMITHVILLE, MO 64089	GP	WERNER, FRANKLIN C 5140 ANTIOCH RD KANSAS CITY, MO 64119	GS	FULLGRABE, EMIL A 1914 GREEN MEADOW DR JEFFERSON CITY, MO 65101	GP
RASMUSSEN, MICHAEL A 8001 NW LONDON DR KANSAS CITY, MO 64151	IM	WHEELER, PAUL D 2700 HOSPITAL DR SUITE KANSAS CITY, MO 64116	OBG	GARNER, LYNN M 403 MEIER DR JEFFERSON CITY, MO 65101	PH
REEDER, CHAS C 620 COMMERCIAL AVENUE SMITHVILLE, MO 64089	GP	WICKS, EDWIN O 506 NW 43RD ST KANSAS CITY, MO 64116	PH	GARNER, ROYAL S 1804 SOUTHWEST BLVD JEFFERSON CITY, MO 65101	FP
REVARE, PAUL SPELMAN MEM HOSP SMITHVILLE, MO 64089	FP	WILLIAMS, JOHN M 102 S FOREST LIBERTY, MO 64068	GP	*GIFFEN, LAWRENCE E 420 EAST HIGH ST JEFFERSON CITY, MO 65101	FD
ROBINSON, VAN M 300 PROFESSIONAL BLDG 2700 HOSPITAL DRIVE KANSAS CITY, MO 64116	OBG	WILLIAMS, ROBT D 6700 TROOST AVE KANSAS CITY, MO 64131	TS	GORDON, JAMES S 600 BOONVILLE RD JEFFERSON CITY, MO 65101	AN
ROCKWELL, WAYNE L 2700 HOSPITAL DRIVE KANSAS CITY, MO 64116	OBG	WILLIAMSON, GEO L 2030 SWIFT KANSAS CITY, MO 64116	ORS	GUHLEMAN, HENRY V 506 E HIGH ST JEFFERSON CITY, MO 65101	P
ROSS, WALTER R JR SUITE 100 WESTOWNE III LIBERTY, MO 64068	PUD	WILSON, DAVID E 8630 N OAK TRAFFICWAY KANSAS CITY, MO 64155	FP	GUNN, VICTORIA BOX 1642 JEFFERSON CITY, MO 65101	D
SANDERS, GEO E 617A WILLOW DR LEE'S SUMMIT, MO 64063	GP	WITHROW, JOHN B 3925 N MAIN KANSAS CITY, MO 64116	FP	HANDLER, FRED P 614 BOONVILLE ROAD JEFFERSON CITY, MO 65101	PTH
SAWYER, FLOYD E 5350 N OAK ST TRAFFICWA KANSAS CITY, MO 64118	PD	WOLFRAM, PHILIP H 620 COMMERCIAL ST SMITHVILLE, MO 64089	GP	HAUSER, ROBT J 1431 SOUTHWEST BLVD JEFFERSON CITY, MO 65101	OBG
SCHERTZ, TRUMAN B 2700 HOSPITAL DR STE 40 NO. KANSAS CITY, MO 64116	OPH	WORKMAN, CHAS E 2700 HOSPITAL DR SUITE NORTH KANSAS CI, MO 64116	ORS	HUGHES, DEREK DRS PARK 1111 MADISON JEFFERSON CITY, MO 65101	P
SCHUTZ, JOHN P 1236 JESSE JAMES ROAD EXCELSIOR SPGS, MO 64024	US	WOY, GEORGE H SUITE 700 WESTOWNE VII LIBERTY, MO 64068	ORS	KANACAWA, HAROLD K 701 W HIGH JEFFERSON CITY, MO 65101	IM
SIMON, GRACITA S 1020 N WOODLAND DR KANSAS CITY, MO 64118	AN	WRIGHT, EARL J 2800 HOSPITAL DRIVE KANSAS CITY, MO 64116	PTH	KLEBBA, LARRY B P O BOX 403 JEFFERSON CITY, MO 65101	FP
SLAUGHTER, CARL R 1001 N WOODLAND KANSAS CITY, MO 64118	OBG			KRAUTMANN, JOHN J 1433 SOUTHWEST BLVD JEFFERSON CITY, MO 65101	ORS
*SMITH, CHAS H 2025 SWIFT KANSAS CITY, MO 64116	OM			LANDSBAUM, CHARLES J 701 W HIGH ST JEFFERSON CITY, MO 65101	GE
SOMOZA, JOSE R 15 N E HILL ST KANSAS CITY, MO 64116	PTH			LESLIE, JAMES T 1433 SOUTHWEST BLVD JEFFERSON CITY, MO 65101	ORS
SOPER, WM D 11 WESTOWNE CTR LIBERTY, MO 64068	FP			LOYD, EARL L RIVIERA HEIGHTS HOLTS SUMMIT, MO 65043	IM
SPORTSMAN, WELDON L 7504 N OAK ST TRFY KANSAS CITY, MO 64118	A			MARTY, DAVID R 606 DIX RD JEFFERSON CITY, MO 65101	OTO
STRATMAN, CLARENCE A 6002-A N ANTIOCH RD KANSAS CITY, MO 64119	FP			MATTHEWS, JOHN I 1314 MOREAU DR JEFFERSON CITY, MO 65101	IM
TADEO, ROMANITO A SPELMAN MEM HOSP SMITHVILLE, MO 64089	AN			MC CAFFREE, MARY K 812 CRESTMERE JEFFERSON CITY, MO 65101	IM
TANEY, GARY W 2700 HOSPITAL DR SUITE 5 NO. KANSAS CITY, MO 64116	OBG			MC HANEY, JOHN W 1819 BROOKSIDE JEFFERSON CITY, MO 65101	GP
THOMAS, FRED A 5601 N ANTIOCH KANSAS CITY, MO 64119	D			MCELROY, GEORGE L III 917 A. LESLIE BLVD. JEFFERSON CITY, MO 65102	PD
THOMAS, THOMAS C 104 S. FOREST AVE. LIBERTY, MO 64068	GP			MEIER, FRANCIS X 1913 HAYSELTON DR JEFFERSON CITY, MO 65101	GP
TRIPLETT, DANL A 2700 HOSP DR STE 500 NO. KANSAS CITY, MO 64116	OBG			MEINERSHAGEN, CHAS W 111 FOREST HILL JEFFERSON CITY, MO 65101	PH
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SUGARBAKER, EVERETT O
503 E HIGH ST
JEFFERSON CITY, MO 65101
SUMMERS, JOS S
214 MARSHALL ST
JEFFERSON CITY, MO 65101
TANNER, ROBT H
1505 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
TAYLOR, LEON A
1104 W MAIN ST
JEFFERSON CITY, MO 65101
VAN VRANKEN, EUGENE E
907 MC BLVD
JEFFERSON CITY, MO 65101
WANKUM, ROBERT P
1101-O SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
WATTS, BYRON E
1505 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
WEISS, JAMES J
1505 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
WELLS, COLIN J
3937 RANOALL OR.
JEFFERSON CITY, MO 65102
WERTH, JOS A
1233 JEFFERSON ST.
JEFFERSON CITY, MO 65101
WESTHOFF, OAVIO O
1505 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
WINEGAR, ALVON C
1431 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101

062—COOPER

ABELE, WM A
620 MAIN ST
BOONVILLE, MO 65233
AVERY, WILLAR B
329 MAIN ST
BOONVILLE, MO 65233
HATA, OAIKICHI
329 MAIN ST
BOONVILLE, MO 65233
HUMPHREYS, EDWARD T
329 MAIN ST
BOONVILLE, MO 65233
STUART, BYRON M
910 SHAMROCK TERRACE
BOONVILLE, MO 65233
WINN, GEO W
6TH & SPRING ST
BOONVILLE, MO 65233

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OBG

IM

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GS

066—DALLAS-HICKORY-POLK-DADE

ABDEL-SALAM, AHMED S
RT #1 PRAIRE HEIGHT
BOLIVAR, MO 65613
CARNELL, BILLY M
BUFFALO MEO CENTER-BOX
BUFFALO, MO 65622
GRIFFIN, M E
P. O. BOX E-6
BUFFALO, MO 65622
GRIFFIN, OLIN A
BUFFALO, MO 65622
HARRELL, HENRY J
ROUTE 1 BOX 535
SUMMERFIELD, FL 32691
MC CRAW, DOYLE C
711 N MAIN
BOLIVAR, MO 65613
MC NEEL, LEE A
GREENFIELD, MO 65661
RIOS, RUTH S
451 SOUTH ALBANY
BOLIVAR, MO 65613
ROBINSON, GEO G
HUMANSVILLE, MO 65674
TRACHTMAN, NEIL G
303 E. RAMSEY
BUFFALO, MO 65622

070—DUNKLIN

CASH, CHAS R
DUNMIRE AND CASH CLINIC
KENNETT, MO 63857
CHENG, TUAN CHOU
P. O. BOX 309
KENNETT, MO 63857
OEMENT, OMAN E
501 TEACO RO.
KENNETT, MO 63857
OUNMIRE, GEO Q
504 S BAKER
KENNETT, MO 63857
ENGLISH, WALLACE O
P O BOX 107
CARDWELL, MO 63829
GREEN, JAMES R
501 TEACO RD
KENNETT, MO 63857
KUNTZE, RAOALL P
501 TERRACE RO.
KENNETT, MO 63857
LEGAN, JOHN K
617 BUTLER
KENNETT, MO 63857
MANUBAY, TERESITA
204 W LINDEN CIRCLE
KENNETT, MO 63857
MANUBAY, THEOORO
204 W LINDEN CIRCLE
KENNETT, MO 63857
MILTENBERGER, PAUL C
211 TEACO RD
KENNETT, MO 63857
MOREHEAO, WM E
505 N BECKWITH
MALOEN, MO 63863
PALENSKE, ROBT L
HORNERSVILLE, MO 63855
PU, PIN H
P O BOX 827
KENNETT, MO 63857
SINASA, SURAT
501 TEACO RO.
KENNETT, MO 63857
SISLER, MAYNARD L
217 COLLEGE
KENNETT, MO 63857
SOONATTRAKUL, WUTHISAK
1616 W WASHINGTON
KENNETT, MO 63857
TARVER, QUINTON
919 S JACKSON ST BOX 64
KENNETT, MO 63857
ZIMMERMAN, JOE A
1105 WHITE OAKS PL.
KENNETT, MO 63857

074—FRANKLIN-GASCONADE-WARREN

ALLEN, JERRY H
800 E. FIFTH ST
SUITE 304
WASHINGTON, MO 63090
AULENBACHER, CARL E
#1 EMERSON OR
WASHINGTON, MO 63090
BAKER, DONALD L
MEDICAL ARTS CLINIC
UNION, MO 63084
BAKER, GARY E
800 E 5TH ST.
SUITE 202
WASHINGTON, MO 63090
BANERJEE, OILIP
800 E 5TH ST
WASHINGTON, MO 63090

BONNEY, SAML C
1325 S GRAND BLVD
ST LOUIS, MO 63104
BRENNER, PAUL A
108 W WASHINGTON ST
OWENSVILLE, MO 65066
BRUNWORTH, DAVID
12 FRANKLIN
WASHINGTON, MO 63090
CARLI, ALEXANDER
800 E. 5TH ST.
WASHINGTON, MO 63090
CHANDRAMOHAN, NANJAPPA
215 ELM ST
WASHINGTON, MO 63090
CRANE, JOHN B
WASHINGTON, MO 63090
CRAWFORD, ROBT M
20 HUGHES FORD RD
SULLIVAN, MO 63080
CREPPS, LOUIS F
44 DURHAM DRIVE
WASHINGTON, MO 63090
DE LA TORRE, JOHN J
459 W SPRINGFIELD
SULLIVAN, MO 63080
EISENMANN, BENJ P
NEW HAVEN, MO 63068
EYERMANN, HENRY W
WARRENTON, MO 63383
FARRELL, SAMMY L
10 FRANKLIN
WASHINGTON, MO 63090
HOELSCHER, HAROLO F
304 E MAIN ST
WARRENTON, MO 63383
HOUTTUIN, ERIK
1325 S GRAND BLVD
DEPT SURG
ST LOUIS, MO 63104
KIM, YANG H
800 EAST 5TH ST.
SUITE 105
WASHINGTON, MO 63090
MITCHELL, THOS J
75 N MAIN
ST CLAIR, MO 63077
MOELLENHOFF, ROBT W
900 E. 8TH ST., SUITE C.
WASHINGTON, MO 63090
MURNEY, JOSEPH
201 ELM ST
WASHINGTON, MO 63090
POST, JOHN P
416 CEDAR ST
WASHINGTON, MO 63090
RAWSON, PERRY G
ST FRANCIS MERCY HOSPIT
WASHINGTON, MO 63090
RICHARSON, GEO A
BOX 307
UNION, MO 63084
RICHARDSON, WM R
BOX 228
UNION, MO 63084
ROYSE, ROY P
316 ELM ST
SULLIVAN, MO 63080
RYAN, JOHN B
429 CECAR
WASHINGTON, MO 63090
SCHMIOT, CHAS A
GERALD MEO CENTER
GERALD, MO 63037
SHAW, JAMES T
18TH & WEIN STS
HERMANN, MO 65041
SHEA, JAMES G
800 E. 5TH ST.
SUITE 102
WASHINGTON, MO 63090
SINCOX, CHAS H
205 ELM
WASHINGTON, MO 63090
SNYOER, SCOTT W
P. O. BOX 93
WASHINGTON, MO 63090
STINE, COROON W
205 ELM
WASHINGTON, MO 63090
STREHLMAN, BENJ G
510 WEST ENO
UNION, MO 63084
UMALI, EMILIANO C
EL VALLITO SUBDO
#6 VIONTO DR
WASHINGTON, MO 63090
WORKMAN, GEO M
P O BOX 246
18TH & WEIN ST
HERMANN, MO 65041
ZAHN, FREDERICK R
ST FRANCIS MERCY HOSP.
200 MACOISON AVE
WASHINGTON, MO 63090

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078—GRAND RIVER

(Caldwell-Carroll-Livingston-Grundy-
Davies-Harrison-Linn-Mercer-
DeKalb Counties)

BALES, EUGENE L IM
BALES CLINIC
111 N FOLGER ST
CARROLLTON, MO 64633
BOHNSACK, RALPH W GP
125 E LOCKLING
BROOKFIELD, MO 64628
BROYLES, WATKINS A GP
P O BOX 352
BETHANY, MO 64424
COFER, THOS N IM
511 ELM P O BOX 905
CHILLICOTHE, MO 64601
CONRAD, JOS A GP
511 ELM ST
P O BOX 905
CHILLICOTHE, MO 64601
CRAIG, HERBERT W ORS
205 E. 9TH ST.
TRENTON, MO 64683
CROSS, ALBERT D GP
618 E FIRST ST
TRENTON, MO 64683
DALEY, FRANK R GP
HAMILTON, MO 64644
DIXON, JOHN R GS
125 E LOCKLING ST
BROOKFIELD, MO 64628
DUFFY, OLIVER F US
902 CUSTER
TRENTON, MO 64683
ELLSWORTH, WILLARD GP
CAINSVILLE, MO 64632
FAIR, WM L FP
910 CLAY ST
CHILLICOTHE, MO 64601
FUSON, WM A GP
108 STREET
P O BOX 2579
CALEDONIA, MI 49316
GALE, JOS F GP
103 11TH ST
CHILLICOTHE, MO 64601
GALVEZ, SISENANDO P IM
105 S KANSAS
MARCELINE, MO 64658
GEARHART, MERRIAM GS
2525 MILLER ST
BETHANY, MO 64424
GILLILAND, CHAS E PTH
817 W 4TH ST
CAMERON, MO 64429
HOWELL, BILLY D GP
P O BOX 367
BROOKFIELD, MO 64628
LEVENE, ROBERT B IM
511 ELM
CHILLICOTHE, MO 64601
MANDLER, GEO OTO
913 WEBSTER ST
CHILLICOTHE, MO 64601
MC ARTOR, THOS R GP
BOX 135
BROWNING, MO 64630
NIXON, EDWARD E GP
GALLATIN, MO 64640
PARK, YOUNG E PTH
100 CENTRAL STREET
CHILLICOTHE, MO 64601
PLATZ, JOHN H GP
16 N MONROE ST
CARROLLTON, MO 64633
QUINN, KENT S R
187 36TH AVE. N.W.
ROCHESTER, MN 55901
RIVERA, PEPITO C GS
225 W. HAYDEN
MARCELINE, MO 64658
ROSE, JOHN F R
2105 MEADOW LANE CIRCLE
CHILLICOTHE, MO 64601
RYAN, DAVID FP
618 E. FIRST ST.
TRENTON, MO 64683
SMITH, ROBT W GP
BROOKFIELD PLAZA
BROOKFIELD, MO 64628
STATON, R H GP
215 S MAIN ST
CARROLLTON, MO 64633
SZYMANSKI, STANLEY R
329 N ROLLINS ST
MACON, MO 63552
TRINIDAD, HERMANITO R GS
103 - 11TH ST., SUITE 8
CHILLICOTHE, MO 64601
WILSON, FRED K GP
WINSTON, MO 64689
WONG, DAVID T U
8520 BROOKHOLLOW
WICHITA, KS 67206
YOON, JIN S OBG
103 11TH ST
CHILLICOTHE, MO 64601

082—GREENE

ALCANCIA, ELPIDIO Y TR
1423 N JEFFERSON
SPRINGFIELD, MO 65802
ALLEN, JERRY H GS
1211 S GLENSTONE ST
SPRINGFIELD, MO 65804
ALLISON, JAMES B P
2200 E SUNSHINE STE 301
SPRINGFIELD, MO 65804
ANCHETA, APOLINARIO A GS
PROFESSIONAL BLDG.
SUITE 306
SPRINGFIELD, MO 65806
ANDERSON, DOUGLAS A PTH
1235 EAST CHEROKEE
SPRINGFIELD, MO 65802
ANTHONY, DALLAS D R
609 CHERRY
PROFESSIONAL BLDG SU
SPRINGFIELD, MO 65806
ASH, CHARLES J ORS
1443 N ROBBERSON ST
SPRINGFIELD, MO 65802
ASHLEY, THOS E GS
1211 S GLENSTONE ST
SPRINGFIELD, MO 65804
ATKINSON, LANCE D GP
626 E. BATTLEFIELD RD.
SPRINGFIELD, MO 65807
ATKINSON, THOS E OPH
1900 S NATIONAL NO 1400
SPRINGFIELD, MO 65804
AUNER, CECIL R IM
600 S GLENSTONE
SPRINGFIELD, MO 65802
BACK, DONALD K IM
1211 S GLENSTONE
SPRINGFIELD, MO 65804
BAGBY, JACK M JR IM
1550 E. SUNSHINE
SPRINGFIELD, MO 65804
BAILEY, ALAN H PUD
609 CHERRY ST
221 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
BALDWIN, RICHARD M OBG
600 S GLENSTONE ST
SPRINGFIELD, MO 65802
BARNHILL, FLOYD R OTO
1900 SOUTH NATIONAL
SPRINGFIELD, MO 65804
BARTLETT, JOHN E DR
COX MED CNTR DPT OF R
SPRINGFIELD, MO 65802
BARTLEY, RICHARD L FP
SOUTHWEST MISSOURI ST
TAYLOR HEALTH CENTER
SPRINGFIELD, MO 65802
BEISNER, DONALD H OPH
2900 S FREMONT
SPRINGFIELD, MO 65804
BENNETT, ROBERT U ORS
1550 E. SUNSHINE
SPRINGFIELD, MO 65804
BENNOCH, SHANE L PD
COX MED CNTR
1423 N JEFFERSON
SPRINGFIELD, MO 65802
BENSON, RONALD G OBG
404 E BATTLEFIELD
SPRINGFIELD, MO 65807
BENTLEY, JOHN D IM
1900 S NATIONAL SUITE 2
SPRINGFIELD, MO 65804
BERRY, PAUL T FP
1740 S GLENSTONE OFF O
SPRINGFIELD, MO 65804
BLADES, ROSS D U
1211 S GLENSTONE AVE
SPRINGFIELD, MO 65804
BOLES, ROBERT D GS
1211 SOUTH GLENSTONE
SPRINGFIELD, MO 65804
BONEBRAKE, ALBERT J R
1179 KIRKHAM
GLENDALE, MO 63122
BONEBRAKE, MAC D OBG
609 CHERRY ST
304 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
BOONE, MARTIN H AN
RT 2 BOX 315
SPRINGFIELD, MO 65802
BORJA, EGBERT R IM
2912 S. BRENTMOOR
SPRINGFIELD, MO 65804
BRENT, LANNY R DR
208 MEDICAL TOWER
SPRINGFIELD, MO 65802
BRIAN, WM J AN
229 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
BRIGHT, JAMES E P
2003 E. SUNSHINE
SUITE J
SPRINGFIELD, MO 65804
BROADBUSH, LOREN E IM
1550 E SUNSHINE
SPRINGFIELD, MO 65804

BROOKS, JOHN E N
609 CHERRY
406 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
BROWN, DAVID W ORS
609 CHERRY ST
SPRINGFIELD, MO 65806
BROWN, JAMES T CD
2222 E BERKELEY
SPRINGFIELD, MO 65804
BURKEY, JORDAN W OTO
410 PROF BLDG
SPRINGFIELD, MO 65806
BUSIEK, ERWIN F PD
609 CHERRY
319 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
BUSIEK, PAUL J PD
1717 E GRAND
SPRINGFIELD, MO 65804
BUSIEK, URBAN J PD
609 CHERRY ST
319 PROF BLDG
SPRINGFIELD, MO 65806
BUSSMANN, DONALD W JR U
3741 E. SUGAR HILL
SPRINGFIELD, MO 65804
BUSSMANN, YVONNE C PD
1211 S. GLENSTONE
SPRINGFIELD, MO 65804
BUTLER, CHARLES F IM
1443 N ROBBERSON
SUITE 303
SPRINGFIELD, MO 65802
CALLAWAY, GUY D IM
901 E PORTLAND
SPRINGFIELD, MO 65804
CANLAS, MARIO P NS
205 MEDICAL TOWERS
SPRINGFIELD, MO 65802
CARLTON, LYNN N DR
403 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
CAROLLA, ROBERT L IM
1900 SOUTH NATIONAL
SUITE 2800
SPRINGFIELD, MO 65804
CARR, PHILLIP W CD
1211 S GLENSTONE
SPRINGFIELD, MO 65804
CARRELL, ROBERT P AN
229 PROFESSIONAL BLDG
609 CHERRY
SPRINGFIELD, MO 65806
CHEEK, J W CD
1900 S NATIONAL AVE
SPRINGFIELD, MO 65804
CHRISTENSEN, HAROLD L CD
1550 SUNSHINE
SPRINGFIELD, MO 65804
CHRISTY, RAYMOND A PD
1211 S GLENSTONE ST
SPRINGFIELD, MO 65804
CLARKE, MICHAEL J GS
609 CHERRY ST
116 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
CLARKE, MICHAEL S ORS
1900 S. NATIONAL
SUITE 1950
SPRINGFIELD, MO 65804
CLARY, WM F P
1900 S NATIONAL
SPRINGFIELD, MO 65804
CLAWSON, JAMES W GS
609 CHERRY
305 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
CLAYTON, EDGAR L PDA
609 CHERRY ST
103 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
COCHRAN, THOS E CD
1211 S GLENSTONE ST
SPRINGFIELD, MO 65804
COLLER, FREDERICK C NM
2108 E CAMBRIDGE
SPRINGFIELD, MO 65804
COLLINS, DOUGLASS D PD
114 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
CONRAD, RAYMOND C OBG
609 CHERRY ST
117 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
COOK, JAMES R AN
2333 E GREENWOOD
SPRINGFIELD, MO 65804
COOPER, CLAUDE W CD
1211 S GLENSTONE
SPRINGFIELD, MO 65804
CORDONNIER, JAMES K GS
1550 E SUNSHINE
SPRINGFIELD, MO 65804
CORY, FRANCIS M GS
1211 S GLENSTONE
SPRINGFIELD, MO 65804
COSCIA, ROBERT L GS
501 MEDICAL TOWER
SPRINGFIELD, MO 65802

COMPONENT SOCIETY ROSTER

COULTER, JAMES W BOX 192C RT 3 ROGERSVILLE, MO 65742	PUD	GENTRY, MICHAEL A 1722 K S GLENSTONE SPRINGFIELD, MO 65804	D	HORTON, JAMES D 1235 E DELMAR SPRINGFIELD, MO 65804	ORS
CRAWFORD, ORAL B 609 CHERRY 229 PROF BLDG SPRINGFIELD, MO 65806	AN	GERDES, JOHN A ST JOHNS HOSPITAL SPRINGFIELD, MO 65804	PTH	HRNICEK, GARY E 1443 N ROBBERSON SPRINGFIELD, MO 65802	IM
CRIGHTON, JOHN C 501 MEDICAL TOWER SPRINGFIELD, MO 65802	GS	GERMAN, WALTER A 1211 S GLENSTONE SPRINGFIELD, MO 65804	OBG	HUBBARD, SALLY L 901 NATIONAL SMSU STUDENT CLINIC SPRINGFIELD, MO 65802	FP
CROSTHWAIT, EDWARD L 1305 BATTLEFIELD SPRINGFIELD, MO 65804	GP	GIDDINGS, FRANK C 208 MEDICAL TOWER SPRINGFIELD, MO 65804	R	HUEWE, DOUGLAS A 321 PROF BLDG 609 CHERRY SPRINGFIELD, MO 65806	D
CUNNINGHAM, D D 1715 BOONVILLE AVE SPRINGFIELD, MO 65803	GP	GILL, PAUL J 1211 S GLENSTONE SPRINGFIELD, MO 65803	IM	HUFFT, ROBERT E 600 S GLENSTONE MED VIL SPRINGFIELD, MO 65802	ORS
CUNNINGHAM, RICHARD D 609 CHERRY ST. SPRINGFIELD, MO 65801	IM	GLOVER, JACK F 1550 E SUNSHINE SPRINGFIELD, MO 65804	IM	HULSTRA, JOHANNES F 1211 S GLENSTONE SPRINGFIELD, MO 65802	P
DANIELSSON, ERNST P 3324 E REDBUD LANE SPRINGFIELD, MO 65804	PS	GLOSE, DON F 1550 E SUNSHINE ST SPRINGFIELD, MO 65804	GS	HUSTED, FREDERICK C 1550 E SUNSHINE SPRINGFIELD, MO 65804	IM
DECKARD, SHELBY W 2256 E MEADOW SPRINGFIELD, MO 65804	IM	GRACE, STEVE 304 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	OBG	IPPENSEN, JOHN H 1900 SOUTH NATIONAL SPRINGFIELD, MO 65804	OTO
DEXTER, JOHN K 609 CHERRY SPRINGFIELD, MO 65806	IM	GRANT, RUTH 1900 SO NATIONAL SUITE 2800 SPRINGFIELD, MO 65804	IM	ISAAC, ANITA M LESTER E COX MEDICAL CT SPRINGFIELD, MO 65802	PM
DILLARD, ERIN M 118 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	ORS	GRIESEMER, BERNARD A 3014 J E SUNSHINE SPRINGFIELD, MO 65804	PD	IVY, HENRY B 600 S GLENSTONE AVE SPRINGFIELD, MO 65802	OPH
DILLS, JOS N 1554 S CAMPBELL SPRINGFIELD, MO 65804	GS	GUTZMER, ERNEST W 2714 E GLENWOOD SPRINGFIELD, MO 65804	PUD	JAMESON, JAMES E 118 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	ORS
DOMANN, DARREL D 508 MEDICAL TOWER SPRINGFIELD, MO 65802	PS	GWIN, EDWARD 1550 E SUNSHINE SPRINGFIELD, MO 65804	IM	JANECZKO, GREGORY F 229 PROFESSIONAL BLDG. SPRINGFIELD, MO 65806	AN
DOWELL, J L BOX 39 STRAFFORD, MO 65757	GP	H'DOUBLER, CHAS E 406 MEDICAL TOWER SPRINGFIELD, MO 65802	GS	JOBE, CHAS L 1211 S GLENSTONE-S G C SPRINGFIELD, MO 65804	IM
DUNCAN, DOUGLAS M 1550 E SUNSHINE SPRINGFIELD, MO 65804	ORS	H'DOUBLER, FRANCIS T 1900 S. NATIONAL SUITE 2950 SPRINGFIELD, MO 65804	GP	JOHNSON, FRITZ M 1900 S NATIONAL SPRINGFIELD, MO 65804	TS
DUNCAN, ROBT D 1550 E SUNSHINE ST SPRINGFIELD, MO 65804	GS	H'DOUBLER, PETER B 302 PROF BLDG SPRINGFIELD, MO 65806	GS	JOHNSON, GEO A 609 CHERRY SUITE 307 SPRINGFIELD, MO 65806	AN
EARLS, JIM H 407 PROFESSIONAL BLDG. 609 CHERRY ST. SPRINGFIELD, MO 65806	P	HAEN, CHAS J 1630 N JEFFERSON SPRINGFIELD, MO 65803	GP	JOHNSON, GEO L 609 CHERRY #307 SPRINGFIELD, MO 65806	CRS
ELKINS, RONALD F 2830 E. GLENWOOD ST. SPRINGFIELD, MO 65804	CRS	HALL, DAVID W ROUTE 2 ROGERSVILLE, MO 65742	FP	JOHNSON, JOS C 1211 S GLENSTONE SPRINGFIELD, MO 65804	OBG
ELLIS, FRANCIS J 304 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	OBG	HALL, DURWARD G 2442 S FREMONT SPRINGFIELD, MO 65804	GS	JOHNSON, W B 1443 N ROBBERSON SPRINGFIELD, MO 65802	IM
ELLIS, HARRY L 115 PROF BLDG SPRINGFIELD, MO 65806	U	HAMBURG, FREDERIC L 114 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	PD	JOHNSON, WARFORD B 220 PROFESSIONAL BLDG SPRINGFIELD, MO 65804	IM
ENKVETCHAKUL, BOONMEE 3573 E WHITEHALL SPRINGFIELD, MO 65804	AN	HANAN, ERNEST B 724 EAST KINGSBURY SPRINGFIELD, MO 65802	PTH	JOHNSON, WM F 211 PROF BLDG SPRINGFIELD, MO 65806	U
EVANS, EZRA L 2457 E BARATARIA ST SPRINGFIELD, MO 65804	PD	HANSS, ARMAND W 642 S MISSION SPRINGFIELD, MO 65804	IM	JOHNSTON, JOS L 2855 SOUTHERN HILLS BLV SPRINGFIELD, MO 65806	OBG
FARBER, BARRY S 1900 S. NATIONAL #2700 SPRINGFIELD, MO 65804	U	HARGIS, JAMES L 1211 S. GLENSTONE SPRINGFIELD, MO 65804	IM	JONES, HAROLD L 1550 SUNSHINE SPRINGFIELD, MO 65804	IM
FARTHING, GENE W 2030 S NATIONAL SPRINGFIELD, MO 65804	GS	HARMON, BEN C 1211 S GLENSTONE ST SPRINGFIELD, MO 65804	ORS	KELL, GARY A 1550 E SUNSHINE SPRINGFIELD, MO 65804	IM
FERGUSON, JOHN F 234 PROF BLDG SPRINGFIELD, MO 65806	NS	HARRISON, STRATTON W 410 PROF BLDG SPRINGFIELD, MO 65806	OPH	KELLY, JAMES C 1900 S NATIONAL SUITE 2500 SPRINGFIELD, MO 65804	PD
FERGUSON, JOHN L 1550 E SUNSHINE SPRINGFIELD, MO 65804	IM	HARVEY, HAROLD D 2030 S NATIONAL SPRINGFIELD, MO 65804	PS	KEY, JAMES S 224 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	D
FERGUSON, JOHN P 609 CHERRY 304 PROFESSIONAL BLD SPRINGFIELD, MO 65806	OBG	HAWKINS, CALVIN D 4932 S PALMER SPRINGFIELD, MO 65804	R	KHALIL, TAMER G 3259 C EAST SUNSHINE SPRINGFIELD, MO 65804	IM
FERRELL, THOS E 1550 E SUNSHINE SPRINGFIELD, MO 65804	GS	HEINZ, GEORGE 1900 S NATIONAL SPRINGFIELD, MO 65804	IM	KINDER, DOYLE O 1211 S GLENSTONE SPRINGFIELD, MO 65804	GP
FINK, ROGER L 204 MEDICAL TOWER SPRINGFIELD, MO 65804	PTH	HELLAM, DUANE C 419 PROFESSIONAL SPRINGFIELD, MO 65806	CD	KIPFER, ROBT E 1550 E SUNSHINE SPRINGFIELD, MO 65804	GE
FITCH, C H 1715 BOONVILLE SPRINGFIELD, MO 65803	GP	HERFKENS, KENNETH D 1900 S NATIONAL SPRINGFIELD, MO 65804	IM	KISSELL, RICHARD W 600 S GLENSTONE SPRINGFIELD, MO 65804	IM
FITE, JAMES E LESTER COX EMERGENCY RO 1423 JEFFERSON SPRINGFIELD, MO 65802	EM	HILLS, JOE E 1550 E SUNSHINE ST SPRINGFIELD, MO 65804	OBG	KLINGER, GEO M 1630 N JEFFERSON ST SPRINGFIELD, MO 65803	GP
FOGERSON, VIRGINIA L 227 E CHESTNUT EXPRESSWAY SPRINGFIELD, MO 65802	GP	HINDS, PAUL A TAYLOR HEALTH CLINIC SPRINGFIELD, MO 65802	PD	KLINGER, GEO M 1630 N JEFFERSON ST SPRINGFIELD, MO 65803	IM
FOGLE, PHILIP R 1900 S NATIONAL SPRINGFIELD, MO 65804	OBG	HOLLAND, ROBT D 1211 S GLENSTONE SPRINGFIELD, MO 65804	AN	KLINKEFUSS, GEO H PROFESSIONAL BLDG - 406 609 E CHERRY SPRINGFIELD, MO 65806	N
FRANCIS, WILLIAM C 600 S GLENSTONE ST SPRINGFIELD, MO 65802	ORS	HOLLIS, RICHARD W 609 CHERRY 229 PROFESSIONAL BLD SPRINGFIELD, MO 65806	IM	KNABB, HENRY F 1630 NORTH JEFFERSON SPRINGFIELD, MO 65803	GP
GASKA, WALTER J 1211 S GLENSTONE SPRINGFIELD, MO 65804	PS	HOLMES, DANL E 600 S. GLENSTONE SPRINGFIELD, MO 65806	OBG	KNABB, KENNETH E 1630 N JEFFERSON ST SPRINGFIELD, MO 65803	GP
GENTRY, MERRITT L 1012 EAST CAMBRIDGE SPRINGFIELD, MO 65804	PH	HOLMES, DAVID R 3259 E SUNSHINE SUITE N SPRINGFIELD, MO 65804			

KNOWLTON, NORMAN P D 419 PROFESSIONAL BLDG 609 CHERRY SPRINGFIELD, MO 65806	IM	MIHALEVICH, JOHN A 1900 S. NATIONAL #3400 SPRINGFIELD, MO 65804	IM	RUSSELL, EARL D 1500 S. GLENSTONE ST SPRINGFIELD, MO 65804	GP
KOBBERMANN, KOBBOY J 1900 S NATIONAL SPRINGFIELD, MO 65804	OBG	MILLER, DAVID D 1443 N ROBERSON SPRINGFIELD, MO 65802	GS	RYAN, ROBERT A 2523 EAST BROADMOOR SPRINGFIELD, MO 65804	GP
KOLZE, VERNON W 600 S. GLENSTONE SPRINGFIELD, MO 65802	GS	MILNE, JAY L SUITE 2700 1900 S. NATIONAL SPRINGFIELD, MO 65804	U	SAMMON, THOS J 30147 E SUNSHINE SPRINGFIELD, MO 65804	PD
KRAHN, HENRY C 208 MEDICAL TOWER SPRINGFIELD, MO 65802	R	MIZELL, MYRON W 1900 S. NATIONAL SUITE 3400 SPRINGFIELD, MO 65804	CD	SAUER, PAUL E 504 MEDICAL TOWER SPRINGFIELD, MO 65802	TS
LA FERRIERE, KEITH A 1900 S. NATIONAL SPRINGFIELD, MO 65804	OTO	MOORE, DE ARMOND 418 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	OM	SCANLON, ROBT C 2145 E EDGEWOOD SPRINGFIELD, MO 65804	GP
LE FEVRE, PHILIP J 2030 S NATIONAL SPRINGFIELD, MO 65804	P	MORTON, PAUL C 1508 E STANFORD SPRINGFIELD, MO 65804	IM	SCHAEFFER, EDWARD M 2900 S FREMONT SPRINGFIELD, MO 65804	OPH
LEIDINGER, KARL J P O DRAWER Y REPUBLIC, MO 65738	GP	MOSELEY, FREDERICK T PROF BLDG SUITE 116 SPRINGFIELD, MO 65806	GS	SCHREIBER, NORMAN J 504 LONGMEADOW CR. ST. CHARLES, IL 60174	GP
LEMMON, GEO B 609 E. CHERRY 103A PROF. BLDG. SPRINGFIELD, MO 65806	A	NEBLETT, LEWIS M RT 2, BOX 213B ROGERSVILLE, MO 65742	OTO	SCHROFF, CARLE H 1630 N JEFFERSON ST SPRINGFIELD, MO 65803	FP
LIN, CHI-HSI 3259 K EAST SUNSHINE SPRINGFIELD, MO 65804	N	NELSON, DAVID E SUITE 208 MEDICAL TOWER SPRINGFIELD, MO 65802	DR	SCHWARTZ, EUGENE J 609 CHERRY ST 317 PROFESSIONAL BLD SPRINGFIELD, MO 65806	A
LISTERMAN, JOHN C 2530 H SO CAMPBELL SPRINGFIELD, MO 65807	GP	NEU, LEO T 3008 CARLISLE CIRCLE SPRINGFIELD, MO 65804	IM	SCHWARTZ, HOWARD R 1550 E. SUNSHINE SPRINGFIELD, MO 65804	IM
LITTON, LYLE D 208 MEDICAL TOWER SPRINGFIELD, MO 65802	DR	OLSON, ELBERT R 1900 S NATIONAL STE 140 SPRINGFIELD, MO 65804	OPH	SCOTT, ROBERT W 609 CHERRY SPRINGFIELD, MO 65806	IM
LOCKHART, CHAS E 609 CHERRY ST 105 PROFESSIONAL BLD SPRINGFIELD, MO 65806	GS	OVEREND, DONALD S 1211 S GLENSTONE ST SPRINGFIELD, MO 65804	OPH	SHACKTER, BRUCE I 1550 E SUNSHINE ST SPRINGFIELD, MO 65804	ORS
LOEB, RICHARD H 1211 S GLENSTONE SPRINGFIELD, MO 65804	IM	PACHECO, JOSE M 1432 N. JEFFERSON SPRINGFIELD, MO 65802	PD	SHAEFFER, JAMES T 118 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	ORS
LORENC, ERNEST 321 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	D	PADDOCK, GEORGE O 1211 S GLENSTONE SPRINGFIELD, MO 65804	R	SHANE, RAMON A 1900 S NATIONAL SPRINGFIELD, MO 65804	TS
LOVETT, ROBERT L 204 MEDICAL TOWER SPRINGFIELD, MO 65802	PTH	PALCHEFF, CHRIS L 1722 SS S GLENSTONE ST SPRINGFIELD, MO 65804	OPH	SHELTON, ROY W 1211 S GLENSTONE SPRINGFIELD, MO 65804	OPH
LOWE, HORACE A 302 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	GS	PARK, WM I 609 CHERRY #309 SPRINGFIELD, MO 65806	PD	SHIELDS, LAWRENCE S SMSU TAYLOR HEALTH CTR SPRINGFIELD, MO 65802	FP
LUNDMAN, HUGH J 609 CHERRY 116 PROFESSIONAL BLD SPRINGFIELD, MO 65806	GS	PARSONS, CLYDE W III 118 PROFESSIONAL BLDG. SPRINGFIELD, MO 65806	IM	SICELUFF, JOS G SUITE 2700 1900 S. NATIONAL SPRINGFIELD, MO 65804	U
LURIE, HAROLD H 600 S GLENSTONE SPRINGFIELD, MO 65802	IM	PENNINGER, WILLIAM H 600 S GLENSTONE ST SPRINGFIELD, MO 65802	ORS	SILSBY, DON J 401 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	GS
LUZECKY, MICHAEL H SUITE 406 PROFESSIONAL 609 CHERRY ST SPRINGFIELD, MO 65806	N	PETERSON, STANLEY S 1211 S GLENSTONE ST SPRINGFIELD, MO 65804	ORS	SILSBY, HARRY D 1369 SOUTH FAIRWAY AVE SPRINGFIELD, MO 65804	P
LYNCH, THOS W 1900 S. NATIONAL #3100 SPRINGFIELD, MO 65804	D	PFEIFFER, RALPH B JR FERRELL-DUNCAN CLINIC 1550 E SUNSHINE SPRINGFIELD, MO 65804	IM	SIMPSON, ALBERT P SE MED BLDG 1636 S GLEN SPRINGFIELD, MO 65804	GP
MADDUX, WM P 2634 INGLEWOOD RD SPRINGFIELD, MO 65804	PM	PIKER, KENNETH D 1525 N CAMPBELL AVE SPRINGFIELD, MO 65803	GS	SIMPSON, EMERSON L 1630 N JEFFERSON ST SPRINGFIELD, MO 65803	GP
MAHER, ROBT W 609 CHERRY 307 PROFESSIONAL BLD SPRINGFIELD, MO 65806	GS	PINCKLEY, JAMES N 1211 S GLENSTONE SPRINGFIELD, MO 65804	FP	SMITH, CARLIE B 1223 S KENTWOOD SPRINGFIELD, MO 65804	OPH
MAJOR, TROY E 1630 N JEFFERSON SPRINGFIELD, MO 65802	D	PODRECCA, GUIDO I 207 PROF BLDG SPRINGFIELD, MO 65806	TS	SNEAD, WILLIAM H 307 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	ORS
MANTELL, JACK M 1550 E SUNSHINE SPRINGFIELD, MO 65804	IM	POWELL, EDWIN M 115 PROF BLDG SPRINGFIELD, MO 65806	PTH	SNOW, EMASUE 2030 SOUTH NATIONAL SPRINGFIELD, MO 65804	P
MAPLE, FRANCIS M 1211 S GLENSTONE SPRINGFIELD, MO 65804	GE	PRATER, BILL G 410 PROF BLDG SPRINGFIELD, MO 65806	U	SPALDING, DAVID L 1900 S NATIONAL RD-STE SPRINGFIELD, MO 65804	OPH
MC ALHANY, HOWARD J 1643 EAST CATALPA SPRINGFIELD, MO 65804	NS	PREVITI, VINCENT 1503 S. GLENSTONE SPRINGFIELD, MO 65804	OPH	SPONENBERG, DON D 1211 S GLENSTONE ST SPRINGFIELD, MO 65804	PD
MC CREA, WM A 1211 S GLENSTONE SPRINGFIELD, MO 65804	GP	PRUETT, PAUL L 304 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	GS	STAMATIS, JOHN J 1900 S NATIONAL SUITE 2600 SPRINGFIELD, MO 65804	TS
MC LAUGHLIN, RICHARD D 117 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	OBG	QUINN, PAUL S 1423 N JEFFERSON AVE SPRINGFIELD, MO 65802	OBG	STEAR, CHRISTIAN H 609 CHERRY 229 PROFESSIONAL BLD SPRINGFIELD, MO 65806	AN
MENCHETTI, DONALD E 1630 N JEFFERSON SPRINGFIELD, MO 65803	FP	RABORAR, ARTESO C 207 PROF BLDG SPRINGFIELD, MO 65804	PTH	STEWART, R W 609 E CHERRY ST 219 PROFESSIONAL BLD SPRINGFIELD, MO 65806	GP
MENDEZ, MARIA A 2003 E SUNSHINE #H SPRINGFIELD, MO 65804	P	RAINWATER, ELMER H 410 PROFESSIONAL BLDG SPRINGFIELD, MO 65804	PTH	STEWART, ROBT B 2360 EAST GRAND SPRINGFIELD, MO 65804	OPH
MENTGEN, CARL N 1550 E SUNSHINE ST SPRINGFIELD, MO 65804	IM	RICE, KATHLEEN G 114 PROFESSIONAL BLDG. SPRINGFIELD, MO 65806	OPH	STUBBLEFIELD, WAYNE 2740 S GLENSTONE SPRINGFIELD, MO 65804	GP
MEYER, JOHN W 3014-G EAST SUNSHINE SPRINGFIELD, MO 65804	PD	RIESENBERG, DONALD E 1900 S NATIONAL SPRINGFIELD, MO 65804	PD	STUFFLEBAM, ROBT E 1900 S NATIONAL SUITE 3400 SPRINGFIELD, MO 65804	IM
MICHAEL, HARVEY R 1211 S GLENSTONE SPRINGFIELD, MO 65804	ORS	RISING, DEAN R 1211 S GLENSTONE SPRINGFIELD, MO 65804	PD	STURTEVANT, HARKWOOD N 609 CHERRY 403 PROFESSIONAL BLD SPRINGFIELD, MO 65806	R
MICHAELS, ROBERT 1900 S NATIONAL AVE SPRINGFIELD, MO 65804	OPH	ROBINSON, GARY L 404 E BATTLEFIELD RD SPRINGFIELD, MO 65801	OBG	SULLIVAN, DAN T 609 CHERRY ST 403 PROFESSIONAL BLD SPRINGFIELD, MO 65806	R

SUNDSTROM, FRANK D 1211 S GLENSTONE ST SPRINGFIELD, MO 65802	ORS	WITTMER, SAM L C 600 S GLENSTONE ST SPRINGFIELD, MO 65802	GS	ADLER, FEDERICO 6724 TROOST AVE KANSAS CITY, MO 64131	ORS
SUVA, MORFEO M 2030 S. NATIONAL SPRINGFIELD, MO 65804	IM	WOLF, MARION L 1211 S GLENSTONE SPRINGFIELD, MO 65804	ORS	AGEE, LOREN G RT 1 RANTOUL, KS 66079	GP
SWEENEY, THOS P 403 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	DR	WOLFE, JAMES B SUITE 410 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	OTO	AHUJA, SURAJ P 6601 ROCKHILL RD KANSAS CITY, MO 64131	CD
SWEET, ROBERT A 1211 S. GLENSTONE SPRINGFIELD, MO 65804	IM	WOLFE, JOHN E 155D E. SUNSHINE SPRINGFIELD, MO 65804	PUD	AKIN, C. O 1515 W. TRUMAN RD. INDEPENDENCE, MO 64050	CD
TARRASCH, ERNEST L 1636 S GLENSTONE AVE SPRINGFIELD, MO 65804	OPH	WONG, GEO 2030 S NATIONAL SPRINGFIELD, MO 65804	N	AKS, DANL 6724 TROOST KANSAS CITY, MO 64131	OBG
TAYLOR, WM E 1701 RANCH DRIVE SPRINGFIELD, MO 65802	GP	WOOLDRIDGE, WILFRED E 321 PROF BLDG SPRINGFIELD, MO 65806	D	ALBERG, MARVIN R 3525 N W 60TH TERRACE KANSAS CITY, MO 64151	OM
TENDAI, MARK M 505 MEDICAL TOWER SPRINGFIELD, MO 65802	OBG	WOOTEN, MICHAEL B 1211 S GLENSTONE SPRINGFIELD, MO 65804	GE	ALBOM, JERROLD R 216 RESEARCH MED. OFF. BLDG. 6400 PROSPECT KANSAS CITY, MO 64132	R
TERRY, JAMES F 115 PROF BLDG SPRINGFIELD, MO 65806	U	WYRSCH, LEO M 304 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	OBG	ALDERMAN, DONALD P 3221 W 83RD ST SHAWNEE MISSION, KS 66206	AN
THOMASSON, DAVID D 600 S GLENSTONE SPRINGFIELD, MO 65802	PD	YANCEY, DANIEL L 1211 S GLENSTONE ST SPRINGFIELD, MO 65804	ORS	ALDERMAN, THOS F 1010 CARONDELET SUITE 1 KANSAS CITY, MO 64114	GS
TILLMAN, WALTER W 229 PROF BLDG SPRINGFIELD, MO 65806	AN	ZAHN, ROBT L 1900 S NATIONAL STE 190 SPRINGFIELD, MO 65804	PD	ALDRIDGE, JOHN SUITE 201(S3) 6025 PROSPECT KANSAS CITY, MO 64130	OBG
TOMBRIDGE, THOS L 1235 E CHEROKEE ST JOHN'S HOSPITAL SPRINGFIELD, MO 65804	PTH			ALFIE, SALOMON 4400 BROADWAY SUITE 202 KANSAS CITY, MO 64111	P
TROTTER, WM Y 1243 E CATALPA SPRINGFIELD, MO 65804	IM	HOLLINGSWORTH, RAY S MEDICAL BLDG HOSPITAL D CLINTON, MO 64735	GP	ALLEBACH, HOBART K 6400 PROSPECT AVE KANSAS CITY, MO 64132	PTH
TROXIL, ELIZABETH B 1000 E ELM APT 3 SPRINGFIELD, MO 65806	PM	HUGHES, SHELBY B 210 E WILSON CLINTON, MO 64735	GP	ALLEN, ARTHUR A II 210 FOXHILL MED. BLDG. 4601 W. 109TH ST. SHAWNEE MISSION, KS 66211	N
TSANG, JOHN L 3259 G EAST SUNSHINE SPRINGFIELD, MO 65804	NS	JONES, EDNA M RT #2 DEEPWATER, MO 64740	TS	ALLEN, ROBT E 4320 WORNALL RD KANSAS CITY, MO 64111	GS
TURNER, GLENN O 609 CHERRY SPRINGFIELD, MO 65806	IM	KING, RICHARD H HOSPITAL OR C/O MEDICAL CLINIC CLINTON, MO 64735	GS	ALMQUIST, L A BAPTIST MEM HOSP 6601 ROCKHILL RD. KANSAS CITY, MO 64131	FP
TURNER, WM F S.M.S.U. TAYLOR HEALTH CTR. SPRINGFIELD, MO 65802	FP	SCOTT, KENNETH F MED BLDG-HOSPITAL DR CLINTON, MO 64735	FP	ALSO, P, WEBB S 6400 PROSPECT KANSAS CITY, MO 64132	AN
WACHTER, RONALD M DEPT PATHOLOGY COX MEDICAL CENTER SPRINGFIELD, MO 65804	PTH	SMITH, JAMES O MEDICAL BLDG HOSPITAL D CLINTON, MO 64735	GP	ALTOMARE, EDWARD P 1030 W 65TH ST KANSAS CITY, MO 64113	AN
WADOELL, KENNETH E 1211 S GLENSTONE SPRINGFIELD, MO 65804	OBG	SMITH, WM J 103 W COLT ST WINDSOR, MO 65360	GP	AMES, MARY B 7261 EBY DR. SHAWNEE MISSION, KS 66204	OS
WAKEMAN, J N 1402 E. MEADOWMERE SPRINGFIELD, MO 65802	GS	WELTSCHKEFF, CHRISTO A 120 S MAIN WINDSOR, MO 65360	GP	AMINI, JAFAR TRUMAN MEDICAL CENTER 2301 HOLMES KANSAS CITY, MO 64108	R
WAKEMAN, NEWT 1900 S NATIONAL ST SPRINGFIELD, MO 65804	ORS	WETZEL, GUS S ROUTE 4 CLINTON, MO 64735	GS	AMMATELLI, FRANCIS J 412 ST JOSEPH MEDICAL B 1010 CARONDELET DR KANSAS CITY, MO 64114	IM
WALKER, GARY 117 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	OBG			AMOURY, RAYMOND A CHILDRENS MERCY HOSPITA 24TH & GILLHAM RD KANSAS CITY, MO 64108	GS
WALKER, WM M 609 CHERRY ST 17 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	OBG	DEAN, FRANCIS D 300 N CHURCH ST FAYETTE, MO 65248	GP	ANDERSON, RAYMOND B 24TH GILLHAM RD KANSAS CITY, MO 64108	PD
WALL, NORMAN R 1443 N. ROBERSON SPRINGFIELD, MO 65802	PS	LEECH, MAURICE P 300 N CHURCH FAYETTE, MO 65248	GP	*ANDREWS, RICHARD C 1314 ED CAREY ROAD HARLINGEN, TX 78550	IM
WANTUCK, DONALD K 1900 S. NATIONAL SUITE 3400 SPRINGFIELD, MO 65804	IM	MARSHALL, WILLIAM G GLASGOW MED CTR GLASGOW, MO 65254	FP	ANDRUS, BAILEY C 4400 BROADWAY KANSAS CITY, MO 64111	PD
WARRES, HERBERT L 609 CHERRY ST 230 PROFESSIONAL BLD SPRINGFIELD, MO 65806	U	SHAW, WM J 300 N CHURCH ST FAYETTE, MO 65248	GP	ANTHONY, JAMES P 3807 WEST 171ST ST STILWELL, KS 66085	DR
WATERFIELD, JIM R 1211 S GLENSTONE SPRINGFIELD, MO 65801	IM			ARBAB, ALI A 751 E 63RD ST KANSAS CITY, MO 64110	GS
WHITE, R N 301 MEDICAL TOWER SPRINGFIELD, MO 65802	OBG	ABDOU, NANCY L 316 RESEARCH MED. OFF. BLDG. 6400 PROSPECT KANSAS CITY, MO 64132	IM	ARMS, ARNOLD V 450 N PRYOR RD LEE'S SUMMIT, MO 64063	IM
WHITLOCK, C C 405 MEDICAL TOWER SPRINGFIELD, MO 65802	NS	ABELLA, BIENVENIDO Z 416 MAIN ST. BELTON, MO 64012	GS	ARMS, RICHARD A 4240 BLUE RIDGE BLVD KANSAS CITY, MO 64133	PUD
WILLIAMS, JOHN W IV 404 E. BATTLEFIELD SPRINGFIELD, MO 65807	OBG	ABEND, MELVIN N 6724 TROOST KANSAS CITY, MO 64131	PS	ARNOLD, JOHN D 5101 E 24TH ST KANSAS CITY, MO 64127	PA
WILSON, ROY E 1900 S. NATIONAL STE. 3300 SPRINGFIELD, MO 65804	P	ABERCROMBIE, KEITH J 1010 CARONDELET DR KANSAS CITY, MO 64114	U	ARNOLD, LOWRY K 101 MEMORIAL DRIVE ST. MARY'S HOSP. KANSAS CITY, MO 64108	PYH
WINSKY, ARLEN D 508 MEDICAL TOWER SPRINGFIELD, MO 65802	PS	ABRAMS, BERNARD M P O BOX 7252 KANSAS CITY, MO 64113	N	ARRIBAS, AURORA I 1000 S 42ND BLUE SPRINGS, MO 64015	GP
WISE, GORDON F 229 PROF BLDG SPRINGFIELD, MO 65806	AN	ABRAMSON, SARA J 7311 EBY DR. APT. 306 SHAWNEE MISSION, KS 66204	DR	ARRIBAS, ROMEO F 1212 LUTTRELL BLUE SPRINGS, MO 64015	GS
WITTMER, MARC R 600 S. GLENSTONE SPRINGFIELD, MO 65802	GS	ADAMS, CHARLES R 4512 RAINBOW KANSAS CITY, KS 66103	IM	ARSENOVIC, ALEXANDER KANSAS CITY MEDICAL CEN 917 MC GEE ST KANSAS CITY, MO 64106	FP
		ADELMAN, ARTHUR 6724 TROOST SUITE 910 KANSAS CITY, MO 64131	GS		

ASHBY, JENNIFER E 2929 BALTIMORE SUITE 310 KANSAS CITY, MO 64108	D	BAY, MERRILL R 301 S. WOODS CHAPEL RD BLUE SPRINGS, MO 64015	OM	BINDA, ROBERT E 142 RESEARCH MEDICAL OF 6400 PROSPECT AVE KANSAS CITY, MO 64132	AN
ASHCRAFT, KEITH W 509 BROADWAY MED BLDG 4400 BROADWAY KANSAS CITY, MO 64111	GS	BAYER, WILLIAM L 4040 MAIN KANSAS CITY, MO 64111	IM	BLACK, DON A 6400 PROSPECT ST KANSAS CITY, MO 64132	IM
ASHER, A G 2102 CHIPMAN RD LEE'S SUMMIT, MO 64063	CD	BEALL, MC PHERSON S 1010 CARONDELET DR. #426 KANSAS CITY, MO 64114	ORS	BLACK, EUGENE C 3201 W 67TH ST SHAWNEE MISSION, KS 66208	OM
ASHLEY, JOHN T TRUMAN MEDICAL CENTER 2301 HOLMES KANSAS CITY, MO 64108	PH	BEARD, WM J 10604 E. 98TH TERR #3C KANSAS CITY, MO 64134	IM	BLACK, ROSS R 1740 W 92ND STREET KANSAS CITY, MO 64114	FP
ASHLEY, LILLARD G A SUITE 505 1734 E 63RD S KANSAS CITY, MO 64110	CD	BEATTY, EUGENE C 24TH GILLHAM RD KANSAS CITY, MO 64108	PTH	BLACK, THOMAS C 1010 CARONDELET DR SUITE 416 KANSAS CITY, MO 64114	OPH
ATWELL, FLOYD C 4320 WORNALL RD KANSAS CITY, MO 64111	OBG	BEATTY, NINA J TRUMAN MEDICAL CTR 2301 HOLMES KANSAS CITY, MO 64108	AN	BLIM, RICHARD D 4400 BROADWAY KANSAS CITY, MO 64111	PD
AUSTIN, GEORGE M 1515 W. TRUMAN RD. SUITE 404 INDEPENDENCE, MO 64050	U	BEAUCHAMP, GARY D 722 MEDICAL PLAZA 4320 WORNALL RD. KANSAS CITY, MO 64111	IM	*BLUM, MICHAEL A 373 W 101ST TERR KANSAS CITY, MO 64114	PD
AVERILL, KEITH H 1010 CARONDELET DRIVE SUITE 110 KANSAS CITY, MO 64114	CD	BECK, CALVIN E 4320 WORNALL RD KANSAS CITY, MO 64111	U	BODENHAUSEN, GARY E 9503 E 63RD ST KANSAS CITY, MO 64133	FP
BAER, ALVIN J 751 E 63D ST KANSAS CITY, MO 64110	OPH	BECKER, RICHARD R 5622 HOLMES ST KANSAS CITY, MO 64110	GP	BOGART, DOUGLAS B 415 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	IM
BAILEY, HUGH R 4320 WORNALL RD KANSAS CITY, MO 64111	D	BECKER, ROLFE A 6724 TROOST AVE SUITE B KANSAS CITY, MO 64131	OPH	BORDY, MARVIN D 601 E 63RD ST KANSAS CITY, MO 64110	PD
BAKER, PHILIP J 9306 E NEW 40TH HWY INDEPENDENCE, MO 64050	GP	BEEKS, JOHN W 522 PROFESSIONAL BLDG 1103 GRAND KANSAS CITY, MO 64106	OM	BORENSTINE, JOS 601 E 63RD ST KANSAS CITY, MO 64110	PD
BALK, ROBERT 4457 CAMBRIDGE KANSAS CITY, KS 66103	IM	BEHREND, STEVEN H 1010 CARONDELET SUITE 120 KANSAS CITY, MO 64114	GS	BORSUK, GREGORY M 535 BLUE RIDGE TOWER 4240 BLUE RIDGE BLVD KANSAS CITY, MO 64133	D
BALLARD, V B 4320 WORNALL RD KANSAS CITY, MO 64111	IM	BELL, HUBERT H 4320 WORNALL RD KANSAS CITY, MO 64111	CD	BORTNICK, EUGENE 6724 TROOST AVE STE 200 KANSAS CITY, MO 64131	PS
BANDY, JOHN R 12107 W. 79TH TERRACE LENEXA, KS 66215	PD	BELL, WM F 615 WEST 3RD STREET LEE'S SUMMIT, MO 64063	GP	BOTWIN, ARNOLD E 404 HIGHLANDS PROF TWR 6724 TROOST KANSAS CITY, MO 64131	GS
BANKUTI, FERENC RESEARCH MED OFF BLDG S 6400 PROSPECT KANSAS CITY, MO 64132	R	BELLER, THOMAS A 6724 TROOST AVE. SUITE 400 KANSAS CITY, MO 64131	IM	BOWLER, LARRY D 1B49-B SO 31ST ST. KANSAS CITY, KS 66106	IM
BARE, CHESTER I 9406 E 63RD KANSAS CITY, MO 64133	PD	BENNETT, JAMES D 6700 TROOST KANSAS CITY, MO 64131	IM	BOWLER, ULYSSES S 6235 E. 127TH ST. GRANDVIEW, MO 64030	IM
BARELLI, PAT A 2929 BALTIMORE STE 105 KANSAS CITY, MO 64108	OTO	BENOIT, HECTOR W 4620 J C NICHOLS PKWY KANSAS CITY, MO 64112	TS	BOWSER, JOHN F 4320 WORNALL NO 128 KANSAS CITY, MO 64111	R
BARLOON, JAMES H 240 ROCKHILL MED. BLDG. 6700 TROOST KANSAS CITY, MO 64131	OBG	BENSON, GEORGE N 2525 EUCLID KANSAS CITY, MO 64127	DR	BOYD, GEO K 4320 WORNALL RD KANSAS CITY, MO 64111	IM
BARNARD, JOHN L 4320 WORNALL RD KANSAS CITY, MO 64111	ORS	BENSON, WILLIAM F 4320 WORNALL RD KANSAS CITY, MO 64111	ORS	BOYER, PHILIP A 5 W. O'BRIEN LEE'S SUMMIT, MO 64063	IM
BARNETT, DANIEL K 12921 GRANDVIEW RD GRANDVIEW, MO 64030	IM	BERENSON, SHELDON E 832 WEST 63RD STREET KANSAS CITY, MO 64113	R	BOYLAN, PETER C 6306 MORNINGSIDE DR KANSAS CITY, MO 64113	ORS
BARNETT, GORDON P 6568 HIGH DR SHAWNEE MISSION, KS 66208	GP	BERGMANN, VICTOR H C/O MRS. GLEN FLENTIE 4934 NORWOOD SHAWNEE MISSION, KS 66205	END	BRABY, HOWARD H 1515 W TRUMAN RD-STE 30 INDEPENDENCE, MO 64050	OBG
BARR, GLENN A 6724 TROOST SUITE 910 KANSAS CITY, MO 64131	GS	BERLIN, ROGER 751 E 63RD RD KANSAS CITY, MO 64110	P	BRADFORD, JOHN F 4320 WORNALL ST KANSAS CITY, MO 64111	OPH
BARRY, WM B 4320 WORNALL RD KANSAS CITY, MO 64111	OTO	BERRY, MAXWELL G 4320 WORNALL RD KANSAS CITY, MO 64111	IM	BRAMS, JACK B 601 E 63RD ST STE 50B KANSAS CITY, MO 64110	IM
BARTER, BRUCE 9150 EAST 41ST TERR. KANSAS CITY, MO 64133	PD	BETTINGER, IRENE E 4320 WORNALL RD. SUITE 432 KANSAS CITY, MO 64111	N	BRAND, STANLEY N STATLAND CLINIC 6724 TROOST-SUITE 71 KANSAS CITY, MO 64131	GE
BARTON, JEAN C CHILDRENS MERCY HOSP 24TH AND GILLHAM RD KANSAS CITY, MO 64108	PD	BICKLEY, JAMES E 328 ST JOSEPH MED BLDG 1010 CARONDELET DR KANSAS CITY, MO 64114	OBG	BRAUN, CHARLES R 2531 CHERRY 3N KANSAS CITY, MO 64108	IM
BASANTZ, FERNANDO V 11201 COLORADO KANSAS CITY, MO 64134	GP	BIDNICK, TERRANCE A WESTERN ELECT. MED. DEPT 777 N. BLUE PARKWAY LEE'S SUMMIT, MO 64063	OM	BRAUN, WILLIAM J CHILDREN'S MERCY HOSPITAL 24TH GILLHAM RD KANSAS CITY, MO 64108	PD
BASKA, RICHARD E CHILDRENS MERCY HOSP KANSAS CITY, MO 64108	N	BIDWELL, JO J 4320 WORNALL KANSAS CITY, MO 64111	P	BRAVERMAN, ABE E 8300 TROOST KANSAS CITY, MO 64131	IM
BASS, BARRY J 11925 E. 57TH ST. KANSAS CITY, MO 64133	GS	BIDWELL, ROBT E 4320 WORNALL RD STE 704 KANSAS CITY, MO 64111	P	BRICK, JEFFREY M 6724 TROOST STE 504 KANSAS CITY, MO 64131	OPH
BASS, WALTER R 8800 E 63RD ST RAYTOWN, MO 64133	OPH	BIERY, RICHARD M K C MO HEALTH DEPT 414 E 12TH ST KANSAS CITY, MO 64106	IM	BROCK, ARTHUR L 1516 W. TRUMAN RD INDEPENDENCE, MO 64050	GE
BATTMER, ROBT E 309 BROADWAY MED. BLDG. 4400 BROADWAY KANSAS CITY, MO 64111	OBG	BIGGS, ALFRED D 6400 PROSPECT AVE. SUITE 333 KANSAS CITY, MO 64132	GPM	BRODKEY, MARK J 6400 PROSPECT AVE KANSAS CITY, MO 64132	U
BAUER, LAFE W 481B W 80TH PRAIRIE VILLAGE, KS 66208	AN	BIGGS, HARRY L 308 W. 3RD ST. LEE'S SUMMIT, MO 64063	IM	BROOK, CHARLES J 400 HIGHLANDS PROF. BLDG. 6724 TROOST KANSAS CITY, MO 64131	PUD
BAUM, FRANK E 6724 TROOST AVE KANSAS CITY, MO 64131	OBG	BILLS, MARVIN L 3309 W 68TH ST SHAWNEE MISSION, KS 66208	GP	BROTHERS, MARY E 2727 MAIN ST. KANSAS CITY, MO 64108	GS
BAVISHI, SAROJ A 373 WEST 101ST TERR KANSAS CITY, MO 64114	OBG		N	BROWER, CLYDE L 17421 MEDICAL CENTER PA INDEPENDENCE, MO 64052	GP
				BROWN, ADRIAN J 12 EAST 63RD ST KANSAS CITY, MO 64113	GP

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BROWN, ELWYN S 24TH AND GILLHAM RD KANSAS CITY, MO 64108	AN	CAMPBELL, JOHN G 6724 TROOST-STE 510 KANSAS CITY, MO 64131	CRS	COBURN, DONALD F THE PLAZA, APT. 812 1303 DELAWARE AVE. WILMINGTON, DE 19806	NS
BROWN, FRANCES S 9355 EAST 70TH TERR. KANSAS CITY, MO 64133	IM	CANENT, RAMON V 24TH & GILLHAM RD KANSAS CITY, MO 64108	PDC	COCHRANE, JOS J 2929 BALTIMORE AVE KANSAS CITY, MO 64108	GS
BROWN, IRWIN S RR #1 LA CYGNE, KS 66040	U	CAPPS, EUGENE C 7921 EL MONTE SHAWNEE MISSION, KS 66208	AN	COCKERELL, SANFORD F 11200 WINNER RD INDEPENDENCE, MO 64052	PO
BROWN, MENZIE H 2929 BALTIMORE AVE SUITE 340 KANSAS CITY, MO 64108	R	CARDENAL, JORGE 9150 E. 41ST TERR. KANSAS CITY, MO 64133	OBG	CDFFEY, RALPH R 5211 WORNALL RD KANSAS CITY, MO 64112	GS
BRDWN, ROBT S 2929 BALTIMORE STE 200 KANSAS CITY, MO 64108	OBG	CARLSON, HJALMAR E 525 PENN PARK MED CTR 2929 BALTIMORE KANSAS CITY, MO 64108	U	*COHEN, DONALD L 7061 GRANADA RD. SHAWNEE MISSION, KS 66208	IM
BRDWN, SCOTT S 12908 W. 66TH TERR. SHAWNEE MISSION, KS 66216	IM	CARLSON, JOHN S 4400 BROADWAY STE 206 KANSAS CITY, MO 64111	PD	COHEN, HARRY K 751 E 63RD ST KANSAS CITY, MO 64110	GP
BROWN, VIOLETA O CHILDRENS MERCY HOSP KANSAS CITY, MO 64108	CHP	CARTER, JAMES E 1734 E 63RD ST STE 410 KANSAS CITY, MO 64110	FP	COHEN, LAWRENCE S 4949 ROCKHILL RD KANSAS CITY, MO 64110	CD
BROWNE, JON E 6306 MORNINGSIDE DR KANSAS CITY, MO 64113	ORS	CARUSO, ALFRED A 1027 E 75TH WAY KANSAS CITY, MO 64131	OBG	COHEN, MARVIN C 7521 BOOTH DR. SHAWNEE MISSION, KS 66208	GS
BRUMM, LAWRENCE W 6400 PROSPECT ST KANSAS CITY, MO 64132	IM	CASE, WM F 416 CARONDELET MEDICAL 1010 CARONDELET DR KANSAS CITY, MO 64114	OPH	COKINGTIN, LEOVIGILDO C 1515 W TRUMAN RD INDEPENDENCE, MO 64050	PD
BRUNER, ROBT E 14909 LITTLE BLUE RD KANSAS CITY, MO 64136	CHN	CASHMAN, JOHN W 6400 PROSPECT 316 RESEARCH MED BLDG. KANSAS CITY, MO 64132	PH	COLE, SHERMAN W 221 PLAZA TIME BLDG KANSAS CITY, MO 64112	P
BRYAN, WM H 3939 PROSPECT KANSAS CITY, MO 64130	GS	CATTANEO, ERNEST A 2929 BALTIMORE KANSAS CITY, MO 64108	IM	COLEMAN, ROBT L 7301 MISSION RD. PRAIRIE VILLAGE, KS 66208	PS
BRYANT, T J 615 HIGHLANDS PROF TOWER 6724 TROOST KANSAS CITY, MO 64131	IM	CENTNER, PAUL J 2727 MAIN ST KANSAS CITY, MO 64108	GS	COLGLAZIER, MARY C 411 NICHOLS ROAD KANSAS CITY, MO 64112	IM
BUCHANAN, BARBARA N 4400 BROADWAY KANSAS CITY, MO 64111	CHP	CHANDLER, ROBT A 4177 BROADWAY KANSAS CITY, MO 64111	PS	COLLINS, JOHN W 1734 E 63RD ST KANSAS CITY, MO 64110	ORS
BUCHWACH, KENNETH A 4240 BLUE RIDGE BLVD. SUITE 434 KANSAS CITY, MO 64133	OTO	CHANDRA, MAHESH 1515 W TRUMAN RD STE 30 INDEPENDENCE, MO 64050	IM	COLOM, GEO A 602 HIGHLANDS PROF TOWE 6724 TROOST KANSAS CITY, MO 64131	P
BUCKNER, ROBT C 328 ST JOSEPH MED BLDG 1010 CARONDELET DR KANSAS CITY, MO 64114	OBG	CHANG, DAVID Y 101 MEMORIAL DR KANSAS CITY, MO 64108	AN	CONN, ROBT D TRUMAN MEDICAL CENTER 2301 HOLMES KANSAS CITY, MO 64108	CD
BUDKE, HAROLD A 306 E 12TH ST KANSAS CITY, MO 64106	GP	CHAPMAN, DAVID W 1515 W TRUMAN RD STE 30 INDEPENDENCE, MO 64050	FP	CONNER, W. EDWIN 304 MEDICAL PLAZA 4320 WORNALL RD. KANSAS CITY, MO 64111	CRS
BUHLER, VICTOR B APT. 10D4 2510 GRAND AVE. KANSAS CITY, MO 64108	PTH	CHAUDHARY, MOHAMMAD A 440 SUBURBAN ODOCTORS BLDG. 10550 QUIVIRA SHAWNEE MISSION, KS 66215	GE	COPPINGER, THOS A 2929 BALTIMORE AVE SUIT KANSAS CITY, MO 64108	IM
BUIE, BRUCE R 11201 COLORADO KANSAS CITY, MO 64137	GP	CHAUDHURI, SUDHA T 1001 E 47TH ST KANSAS CITY, MO 64110	OBG	CORTNER, MARY C 6700 TROOST ST SUITE 22 KANSAS CITY, MO 64131	GP
BUNTING, WILLISTON P 1231 W 62ND KANSAS CITY, MO 64113	OTO	CHAUDHURI, TAPAN K 9406 E 63RD ST KANSAS CITY, MO 64133	IM	COTTER, JOHN B 330 EAST 2ND ST DULUTH, MN 55805	OPH
BURRY, VIRGIL F CHILDRENS MERCY HOSP KANSAS CITY, MO 64108	PD	CHEN, STUART 2411 HOLMES KANSAS CITY, MO 64108	GE	COTTON, THOS R 3725 BROADWAY KANSAS CITY, MO 64111	OTO
BUSTOS, JONAS G 1212 LUTTRELL RD BLUE SPRINGS, MO 64015	GS	CHERNOFF, SELBERT G 4601 INDEPENDENCE AVE KANSAS CITY, MO 64124	IM	COUCHONVAL, GUILLERMO 9150 E. 41ST TERR. KANSAS CITY, MO 64133	IM
BUTCHER, ROBT W 7924 PASEO ST KANSAS CITY, MO 64131	IM	CHILDS, DONNALEA S 4400 BROADWAY KANSAS CITY, MO 64111	CHP	COWAN, GEO A 6724 TROOST SUITE 407 KANSAS CITY, MO 64131	TR
BUTT, ATTA U SUITE 11 751 E. 63RD ST. KANSAS CITY, MO 64110	P	CHILDS, RICHARD M 4320 WORNALL RD STE 452 KANSAS CITY, MO 64111	P	COX, KENNETH E 4320 WORNALL DR KANSAS CITY, MO 64111	OBG
BUTTERWORTH, NELSON S 725 W 49TH TERRACE KANSAS CITY, MO 64112	IM	CHOWDHURY, DIPAK 17421 MEDICAL CTR. PARKWAY INDEPENDENCE, MO 64057	IM	COX, WM L 1212 W TRUMAN RD INDEPENDENCE, MO 64050	A
BYARS, STEVEN R 6724 TROOST SUITE 202 KANSAS CITY, MO 64131	OPH	CHRISTENSEN, SHANE R 532 SOUTH WILLOW INDEPENDENCE, MO 64050	IM	CROCKETT, JAMES E 4320 WORNALL RD KANSAS CITY, MO 64111	CD
CABANAS, JUSTO J 2105 INDEPENDENCE AVE. ROOM 873 KANSAS CITY, MO 64124	P	CHUNG, RICHARD T 1212 SOUTH LUTTRELL BLUE SPRINGS, MO 64015	IM	CROSS, MARY C 10405 F EAST 42ND ST. KANSAS CITY, MO 64133	IM
CAFFREY, RAYMOND J 1314 W RED BRIDGE RD KANSAS CITY, MO 64114	CHP	CHURCHILL, STEPHEN W 4400 BROADWAY KANSAS CITY, MO 64111	CHP	CROUCH, THOS T 4320 WORNALL RD KANSAS CITY, MO 64111	IM
CAIN, A S 6700 TROOST SUITE 348 KANSAS CITY, MO 64131	PTH	CIDIS, GERHARD W 421 PLAZA MEDICAL BLDG 4620 JC NICHOLS PARK KANSAS CITY, MO 64112	OPH	CROW, JIMMIE R 7105 W. 69TH ST. SHAWNEE MISSION, KS 66204	GS
CALDWELL, JOHN K 6700 TROOST KANSAS CITY, MO 64131	CD	CLARK, GRANVILLE E 6025 PROSPECT KANSAS CITY, MO 64130	PD	CROW, MARTIN L 408 BROADWAY MED BLDG 4400 BROADWAY KANSAS CITY, MO 64111	PS
CALOVICH, EMERY R 4620 J C NICHOLS PKWY KANSAS CITY, MO 64112	GP	CLARK, IRVING H 2811 BLUE RIDGE GRANDVIEW, MO 64030	GP	CULLEN, JOHN W CHILDREN'S MERCY HOSP. 24TH & GILLHAM RD. KANSAS CITY, MO 64108	PD
CAMACHO, HOMERO 10505 WEDD SHAWNEE MISSION, KS 66212	FP	CLARKE, JOHN W 2316 E MEYER BLVD. KANSAS CITY, MO 64132	FP	CURRAN, M D 109 BROADWAY MED BLDG 4400 BROADWAY KANSAS CITY, MO 64111	OPH
CAMPBELL, ANN E 4150 OAK KANSAS CITY, MO 64111	OBG	CLINE, DANIEL M 3318 GILLHAM RD. KANSAS CITY, MO 64109	IM	CURRAN, TERRENCE 4400 BROADWAY BLDG KANSAS CITY, MO 64111	OPH
CAMPBELL, FREDERICK B 315 NICHOLS RD KANSAS CITY, MO 64112	IM	CLINE, MERLE A 4126 ST JOHN AVE KANSAS CITY, MO 64123	GP	CURTS, CALVIN J 4320 WORNALL RD KANSAS CITY, MO 64111	OPH
	CRS	CLOTHIER, ROBT W 17221 E 23RD STE 206 INDEPENDENCE, MO 64057	PD	CUTCLIFF, DANL J 6700 TROOST KANSAS CITY, MO 64131	IM
		CLOUGH, CHAS A 4440 BROADWAY KANSAS CITY, MO 64111	NS		

DALTON, TIMOTHY T 11841 OAK ST KANSAS CITY, MO 64114	AN	DRAKE, ROY F 236 ROCKHILL MED. BLDG. 6700 TROOST KANSAS CITY, MO 64131	GS	ESHELMAN, ALBERT D 9103 EAST 40 HIGHWAY INDEPENDENCE, MO 64055	FP
DARNELL, DALE E 4320 WORNALL RD KANSAS CITY, MO 64111	ORS	DRANEY, THOS E 6426 HOLMES KANSAS CITY, MO 64131	PD	EUBANK, DAVID F 9406 E 63RD ST RAYTOWN, MO 64133	PD
DAVIDNER, MARK L 751 EAST 63RD ST. SUITE 266 KANSAS CITY, MO 64110	IM	DREHER, RICHARD L CHILDREN'S MERCY HOSP KANSAS CITY, MO 64108	PD	EUBANK, DILLARD M 6020 ELM AVE KANSAS CITY, MO 64133	GP
DAVIDSON, KENDRICK C 4320 WORNALL KANSAS CITY, MO 64111	R	DRISKO, ROBERT M 2929 BALTIMORE AVE KANSAS CITY, MO 64108	ORS	EUBANK, WM Y 6400 PROSPECT AVE SUITE KANSAS CITY, MO 64132	IM
DAVIS, DONALD R 4320 WORNALL RD KANSAS CITY, MO 64111	GS	DROWNS, BRUCE V 4320 WORNALL RD KANSAS CITY, MO 64111	D	EUPRASERT, PRICHA 6331 DEARBORN DR SHAWNEE MISSION, KS 66202	GS
DAVIS, HERBERT V 4400 BROADWAY KANSAS CITY, MO 64111	PD	DUBIN, SOL H SUITE 401 1515 W TRUMAN RD INDEPENDENCE, MO 64050	ORS	EVANS, CAROL A 9017 W. 78TH CIRCLE SHAWNEE MISSION, KS 66204	IM
DAVIS, JACK M 628 ROCKHILL MED. BLDG. 6700 TROOST KANSAS CITY, MO 64131	IM	DUER, MILDRED C 324 E 69TH TERR KANSAS CITY, MO 64113	PD	EVANS, JOS C 1515 W TRUMAN RD INDEPENDENCE, MO 64050	GS
DAVIS, JOHN M ROCKHILL MEDICAL BLDG. 6700 TROOST KANSAS CITY, MO 64131	IM	DUERKSEN, JOSEPH J 4407 W 54TH TERR SHAWNEE MISSION, KS 66205	AN	EVANS, LAWRENCE L 4320 WORNALL KANSAS CITY, MO 64111	GS
DAVIS, W B 340 PENN PARK MED CENTE 2928 MAIN KANSAS CITY, MO 64108	DR	DUGGAN, EILEEN D CHILDRENS MERCY HOSP 24TH & GILLHAM RD KANSAS CITY, MO 64108	PD	*EVERETT, JAMES E 4 WEST DARTMOUTH RD KANSAS CITY, MO 64113	OBG
DAY, CHESTER L 4140 WEST 71ST ST. SUITE 108 SHAWNEE MISSION, KS 66208	P	DUKSTEIN, WALTER G 6400 PROSPECT KANSAS CITY, MO 64132	NM	EYNON, JAMES R 401 HIGHLANDS PROF. TOWER 6724 TROOST KANSAS CITY, MO 64131	CD
DE FEO, FREDERICK G 8821 WIDMER RD. SHAWNEE MISSION, KS 66215	IM	DUNCAN, WM H 911 MAIN ST KANSAS CITY, MO 64105	GS	FAIRCHILD, ROBT C 8425 RHEINHARDT LANE SHAWNEE MISSION, KS 66206	PD
DE FEO, THEODORE C WORNALL RD AT 44TH ST KANSAS CITY, MO 64111	PTH	DUNLEAVY, JAMES D 4620 JC NICHOLS PKWY ST KANSAS CITY, MO 64112	FP	FARAON, JOSE B 2525 EUCLID AVE KANSAS CITY, MO 64127	PTH
DE MOTT, JOHN D 3618 SUNRISE DR. SEBRING, FL 33870	P	DUNN, ANGUS S DEPT. OF RAD. TRUMAN MED CTR 2301 HOLMES KANSAS CITY, MO 64108	R	FARNHAM, MILO M 1515 W TRUMAN RD INDEPENDENCE, MO 64050	IM
DEEKEN, JAMES H 411 NICHOLS RD STE 170 KANSAS CITY, MO 64112	D	DURIE, ROBT H 545 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	PUD	FAYNE, FRED A SUITE 200 6025 PROSPECT KANSAS CITY, MO 64130	P
DEMPSEY, HERBERT A 615 W 3RD ST LEE'S SUMMIT, MO 64063	GP	DURNELL, MONAFORD D GOPPERT FAMILY CARE CTR 6601 ROCKHILL RD KANSAS CITY, MO 64131	FP	PEDOTIN, MICHAEL S 6724 TROOST SUITE 508 KANSAS CITY, MO 64131	GE
DENNER, LEE J 704 MEDICAL PL KANSAS CITY, MO 64111	P	DWYER, FRANK X 4620 J. C NICHOLS PKWY KANSAS CITY, MO 64112	D	FEE, CHESTER F 2929 BALTIMORE AVE KANSAS CITY, MO 64108	ORS
DESHMUKH, MURLIDHAR R 9406 E 63RD ST KANSAS CITY, MO 64133	IM	DWYER, HUGH L 10016 MASTIN DR SHAWNEE MISSION, KS 66212	PD	FEIST, GEO V 1103 W 86TH TERR KANSAS CITY, MO 64114	GP
DEVINS, GEORGE S 520 ROCKHILL MED. BLDG. KANSAS CITY, MO 64131	PUD	EARNST, JAMES B 2929 BALTIMORE STE 415 KANSAS CITY, MO 64108	CD	FEIST, WM E 10618 W 98TH TERRACE OVERLAND PARK, KS 66214	IM
DEWOLFE, MARK 29 E. 53RD ST. KANSAS CITY, MO 64112	IM	EBBERTS, JAMES W 8928 GRAND KANSAS CITY, MO 64114	IM	FERGUSON, DONALD S 2012 E 24TH ST KANSAS CITY, MO 64127	GP
DIEHL, ANTONI M 4320 WORNALL ROAD 618 MEDICAL PLAZA KANSAS CITY, MO 64111	PDC	EISEMANN, GUSTAVE STATLAND CLINIC 6724 TROOST SUITE 71 KANSAS CITY, MO 64131	IM	FERN, FRANCIS E 520 MEDICAL PLAZA 4320 WORNALL RD. KANSAS CITY, MO 64111	OBG
DIMOND, E G 2501 HOLMES ST KANSAS CITY, MO 64108	CD	ELIAS, DAVID J 9306 E NEW 40 HIGHWAY INDEPENDENCE, MO 64055	GP	FERRIS, CARYL R 6400 PROSPECT KANSAS CITY, MO 64132	IM
DIVELEY, REX L 4320 WORNALL RD KANSAS CITY, MO 64111	ORS	ELKINS, ROBERT L 703 HIGHLANDS PROF. TOWER 6724 TROOST KANSAS CITY, MO 64131	U	FIBUCH, EUGENE E ST LUKES HOSP 44TH AND WORNAL RD KANSAS CITY, MO 64111	AN
DIXON, GEO D 710 MEDICAL PLAZA 4320 WORNALL RD. KANSAS CITY, MO 64111	DR	ELLENBOGEN, CHARLES P. O. BOX 64699 FAYETTEVILLE, NC 28306	ID	FISHER, JAMES K 710 MEDICAL PLAZA 4320 WORNALL RD. KANSAS CITY, MO 64111	DR
DIXON, VEWISER L 2202 E 18TH ST KANSAS CITY, MO 64127	GP	ELLFIELDT, HOWARD J 6400 PROSPECT AVE KANSAS CITY, MO 64132	ORS	FITZ SIMMONS, JAMES G 4320 WORNALL ROAD 710 MEDICAL PLAZA KANSAS CITY, MO 64111	DR
DLABAL, LUKE J JR SUITE 205 17221 E. 23RD ST. INDEPENDENCE, MO 64057	OTO	ELLIOTT, RAYMOND G 320 CARONDELET MEDICAL BLDG. 1010 CARONDELET DR. KANSAS CITY, MO 64114	PP	FITZGERALD, ROBERT H 5219 WEST 96TH STREET OVERLAND PARK, KS 66207	ORS
DLABAL, LUKE J SR 3729 BLUE RIDGE BLVD. INDEPENDENCE, MO 64052	OTO	ELLIOTT, WADE E 710 W 12TH ST KANSAS CITY, MO 64105	GP	FLATLEY, JOHN A 6700 TROOST ST KANSAS CITY, MO 64131	GS
DOERING, ROBT W 6400 PROSPECT KANSAS CITY, MO 64132	GS	ELLIS, DAVID L 6724 TROOST KANSAS CITY, MO 64131	GP	FLEMING, ALLAN R 415 PENN PARK BLDG 2929 BALTIMORE KANSAS CITY, MO 64108	IM
DOMBEK, STANLEY J 330 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	GS	ELSER, OTTO H COM. OF HEALTH MINISTRIES P. O. BOX 1059 INDEPENDENCE, MO 64050	GS	FLETCHER, ROBERT C 1010 CARONDELET DR SUITE 112 KANSAS CITY, MO 64114	OPH
DONOHUE, CHARLES D 17221 E 23RD ST INDEPENDENCE, MO 64057	N	ENGEL, LAWRENCE P 6505 W 103RD SHAWNEE MISSION, KS 66212	OPH	FLYNN, JAMES M MEYER & PROSPECT RESEARCH HOSP KANSAS CITY, MO 64132	PTH
DORSCH, ERVIN H LAKE CITY ARMY AMMUNITI INDEPENDENCE, MO 64050	GP	ENGELMANN, CALVIN E 2929 BALTIMORE AVE KANSAS CITY, MO 64108	GS	FOLCK, WM P 911 MAIN STREET KANSAS CITY, MO 64105	OM
DORZAB, WILLIAM E MENORAH MEDICAL CENTER 4949 ROCKHILL RD KANSAS CITY, MO 64110	PTH	ENGLEMAN, REINHOLD 1002 WALNUT KANSAS CITY, MO 64106	TS	FORGUE, DONALD R CHILDRENS MERCY HOSP 24TH & GILLHAM RD KANSAS CITY, MO 64108	PD
DOWNNEY, JAMES W 310 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	GP	ERICSSON, SAML E 6724 TROOST H205 KANSAS CITY, MO 64131	P	FORMAN, LOUIS H 4320 WORNALL RD KANSAS CITY, MO 64111	P
		ERVIN, JOHN E 11947 AVILA DR. KANSAS CITY, MO 64145	IM	FORSYTHE, LEES C 4320 WORNALL RD KANSAS CITY, MO 64111	IM

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FORSYTHE, ROBT W 4320 WDRNALL RD KANSAS CITY, MD 64111	NS	GIBBDNS, RDBT T JR. 8422 REINHARDT LA. SHAWNEE MISSION, KS 66206	AN	GUERRA, GASTON G 330 PENN PARK 2929 BALTIMDRE KANSAS CITY, MO 64108	GS
FDRTIN, FELIX D 4320 WORNALL ROAD KANSAS CITY, MD 64111	DR	GIBSON, OAVIO M ST LUKES HDSP KANSAS CITY, MD 64111	PTH	GUNDLE, SIGMUND 601 EAST 63RD STREET KANSAS CITY, MO 64110	P
FOUTS, DALLAS B 1515 W TRUMAN RD STE 30 INDEPENDENCE, MO 64050	IM	*GILGORE, ALFRED 9421 PFLUMM RD LENEXA, KS 66215	GP	GUNN, RICHARD W 1500 PROF BLDG 1103 GRANO AVE KANSAS CITY, MO 64106	IM
FOWLER, FRED D 4320 WDRNALL RD KANSAS CITY, MD 64111	NS	GINARDI, DONALD E 9734 WORNALL RO. KANSAS CITY, MO 64114	GE	GUPTA, B S WESTERN MD MENTAL HEALT 600 EAST 22ND ST KANSAS CITY, MD 64108	P
FOWLER, JAMES W 502 ROCKHILL MED BLDG 6700 TROOST KANSAS CITY, MD 64131	IM	GINSBERG, NORMAN A 2929 BALTIMORE STE 320 KANSAS CITY, MO 64108	PS	GUSTAFSDN, JDN E 1509 TRUMAN RD INDEPENDENCE, MD 64050	R
FRANCIS, MICHAEL G 1004 KINGSRIDGE DR. BLUE SPRINGS, MO 64015	IM	GIST, WM W 9406 E 63RD ST KANSAS CITY, MD 64133	GS	GUTEK, EDWARD P 408 BRADWAY MEO BLDG 4400 BRADWAY KANSAS CITY, MD 64111	PS
FRANCISCOD, CLARENCE B CHILDRENS MERCY HOSP OE KANSAS CITY, MD 64108	N	GIVLER, RDBT L RESEARCH MEDICAL CENTER KANSAS CITY, MD 64132	PTH	GUTKNECHT, RICHARD 2116 SD STERLING INDEPENDENCE, MD 64052	DBG
FRANCD, PILAR J 15604 DVERBROOK DR. STANLEY, KS 66084	P	GLASER, LARRY F 6724 TRDDST STE 300 KANSAS CITY, MD 64131	DRS	HAAS, HARRY D 624 MEDICAL PLAZA 4320 WDRNALL RD KANSAS CITY, MD 64111	IM
FRANKLIN, CURTIS U 4301 MAIN STE 41 KANSAS CITY, MD 64111	P	GLASSCOCK, ERNEST L 6214 HIGH OR PRAIRIE VILLAGE, KS 66208	PD	HABIB, HENRY N 232 RESEARCH MED DFF BL 6400 PRDSPECT KANSAS CITY, MD 64132	U
FREEMAN, JERRY C 3725 BRDADWAY KANSAS CITY, MD 64111	DTD	GLATTER, THOMAS R UMKC SCHDDL DF MED 2411 HDLMES KANSAS CITY, MD 64108	IM	HAGAR, DAVID L 9406 E 63RD ST KANSAS CITY, MD 64133	PD
FREIDEN, FLOYD J 436 ROCKHILL MEDICAL BL 6700 TRODST KANSAS CITY, MD 64131	U	GLAZER, MELVIN L 8300 TRDDST KANSAS CITY, MD 64131	IM	HAHN, BRUCE H 615 W 3RD ST LEE'S SUMMIT, MD 64063	GS
FRIEDMAN, MORRIS L 601 E 63RD ST SUITE 301 KANSAS CITY, MO 64110	IM	GDERZ, ANN A 1612 W TRUMAN INDEPENDENCE, MD 64050	PD	HAIN, FREDERICK W 4240 BLUE RIDGE BLVD KANSAS CITY, MD 64133	DTD
FRIEDMAN, PAUL J 9150 EAST 41ST TERRACE KANSAS CITY, MD 64133	IM	GDERZ, RDOAL D 1515 W TRUMAN RDAD INDEPENDENCE, MD 64050	OBG	HAIGHT, JDHN M 3401 E 12TH ST KANSAS CITY, MO 64127	GP
FRITZLEN, THDS J 101 MEMDRIAL DR KANSAS CITY, MO 64108	PTH	GDETZ, KENNETH L WORNALL RDAD AT 44TH ST KANSAS CITY, MO 64111	DS	HAITH, EDWARD E 6724 TRDDST KANSAS CITY, MD 64131	GS
FUHRMAN, DDNALD L 4320 WDRNALL KANSAS CITY, MD 64111	D	GDHEEN, JDHN R 310 CARDNDELET MED. BLDG. 1010 CARDNOELET DR KANSAS CITY, MD 64114	PUD	HAITH, WALTER F 2701 E 31ST ST KANSAS CITY, MD 64128	DBG
FURLDNG, LAWRENCE D 1010 CARDNDELET OR. KANSAS CITY, MD 64114	DR	GOLDMAN, STANLEY L SUITE 503 601 E 63RD ST KANSAS CITY, MD 64110	A	HALL, JDHN C 4400 BRDAOWAY STE 505 KANSAS CITY, MD 64111	D
GADDR, FRANCISCOD A 615 W. 3RD ST. LEE'S SUMMIT, MD 64063	EM	GOLDLSICH, EDWARD 4400 BRADWAY KANSAS CITY, MO 64111	OBG	HALL, RALPH R 3900 W. 57TH ST. FAIRWAY, KS 66205	IM
GAINES, ALBERT H 1734 E 63RD ST SUITE 602 KANSAS CITY, MD 64110	GS	GOLDSTEIN, MARVIN F 6724 TRDOST 504 BRYAN BLDG KANSAS CITY, MD 64131	DPH	HALL, RDBT T 24TH GILLHAM RDAD KANSAS CITY, MD 64108	PD
GAINNEY, HARDL L 8127 PENNSYLVANIA LA KANSAS CITY, MD 64114	DBG	GDDSDSN, WM H 815 W 59TH ST KANSAS CITY, MO 64113	IM	HALPERIN, PHILLIP H 6724 TRDDST SUITE 910 KANSAS CITY, MD 64131	GS
GAITDND, MANGESH R 202 BRDADWAY MED. BLDG. 4400 BRADWAY KANSAS CITY, MD 64111	P	GDDLSBEE, RDBT L 6438 SAGAMDRE SHAWNEE MISSION, KS 66208	AN	HAMAKER, WILLIAM R 510 MEDICAL PLAZA 4320 WDRNALL RD. KANSAS CITY, MD 64111	TS
GALBREATH, ASHFDRD M 4620 JC NICHDLKS PKWY-NO KANSAS CITY, MD 64112	IM	GDTTSC, JOSEPH C 2929 BALTIMDRE AVE KANSAS CITY, MD 64108	DRS	HAMBURGER, STEPHEN C UMKC SCHDDL DF MEDICINE 2411 HDLMES KANSAS CITY, MD 64108	IM
GARD, RAYMDND F 593 TERRACE DR PRATT, KS 67124	GS	GDWDAMARAJAN, RENGASAMY 24TH & GILLHAM KANSAS CITY, MD 64108	PDC	HAMILL, ROBT W 236 MEDICAL PLAZA 4320 WDRNALL RD KANSAS CITY, MD 64111	N
GARNER, JAMES H 1010 CARONDELET OR. #426 KANSAS CITY, MD 64114	DRS	GRAHAM, PATRICK G 4320 WORNALL RD KANSAS CITY, MD 64111	TS	HAMLIN, HDWARO H 4301 MAIN ST KANSAS CITY, MD 64111	GS
GARRISDN, RDY F 6400 PRDSPECT AVE KANSAS CITY, MD 64132	PD	GRAHAM, WALLACE H 304 HIGHLANDS PRDF TDWE 6724 TRDDST KANSAS CITY, MD 64131	GS	HANNAH, HAMNER MENORAH MEDICAL CENTER 4949 ROCKHILL RD KANSAS CITY, MO 64110	DBG
GASKINS, JOHN H F-10 LAKE LDTAWANA LEE'S SUMMIT, MD 64063	PS	GREEN, J R 17221 E 23RD ST INDEPENDENCE, MO 64057	GS	HANNAS, RALSTDN R 11812 AVILA DR KANSAS CITY, MD 64114	EM
GAUTHIER, CHARLES P 2316 E MEYER BLVD KANSAS CITY, MD 64132	PTH	GREEN, THOMAS F 2116 SDUTH STERLING INDEPENDENCE, MD 64052	DBG	HANSDN, E J 4320 WDRNALL RD STE 328 KANSAS CITY, MO 64111	NS
GEHA, BRAHAM J 310 CARDNDELET MED BLDG 1010 CARDNDELET DR KANSAS CITY, MD 64114	IM	GREENBERG, MARTIN T 373 W 101ST TERR KANSAS CITY, MO 64114	IM	HANSDN, KARL H 4320 WDRNELL STE 212 KANSAS CITY, MD 64111	IM
GEIGER, WM A 6400 PROSPECT AVE STE 1 KANSAS CITY, MD 64132	AN	GRIFFIN, DONALD R 8728 CATALINA DR PRAIRIE VILLAGE, KS 66208	AN	HARBRECHT, JAMES J 730 MEDICAL PLAZA 4320 WDRNALL RD. KANSAS CITY, MD 64111	CD
GEMPEL, PAUL A 1221 BRASIE FLDSSMDDR, IL 60422	DBG	GRIFFITH, JDHN A 332 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MD 64111	GS	HARDACRE, RUTH A 3300 CHARLDTTE ST KANSAS CITY, MO 64109	DS
GENDVE-GRUNDEN, VIOALITA 6505 GDDDMAN LANE SHAWNEE MISSION, KS 66202	PTH	GRIMES, ELWYN M TRUMAN MEDICAL CENTER 2301 HDLMES KANSAS CITY, MD 64108	OBG	HARDY, HENRY M 6606 DVERHILL RD SHAWNEE MISSION, KS 66208	AN
GENTRY, ENDCH N 810 W 69TH ST KANSAS CITY, MD 64113	GS	GRDWDDN, JDHN A 6508 ABERDEEN RD SHAWNEE MISSION, KS 66208	GS	HARDY, JDHN W AMER TELEPHDNE & TELEGRAPH 811 MAIN BDX 1418 KANSAS CITY, MD 64141	IM
GERMANN, DONALD R 710 MEDICAL PLAZA 4320 WDRNALL RD KANSAS CITY, MO 64111	DR	GRUNT, JERDME A CHILDRENS MERCY HDSP DE KANSAS CITY, MD 64108	PD	HARLESS, MDRRIS S RT 2 BOX 8B GALENA, MO 65656	GS
GHDLKAR, VIJAY R ST LUKE'S HDSPITAL 44TH & WDRNALL RD. KANSAS CITY, MD 64111	AN	GUASTELLD, JOS R 512 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MD 64111	DTD		
		GUASTELLD, MARID J 4320 WDRNALL RD KANSAS CITY, MD 64111	DTD		

* Doctor of Osteopathy.

HARLOW, LLOYD M 2462 A BROOKLYN ST KANSAS CITY, MO 64127	GS	HOECH, GEO P 6400 PROSPECT KANSAS CITY, MO 64132	AN	JACOBS, MORTON P. O. BOX 22306 KANSAS CITY, MO 64113	P
HARRIN, WM R 300 MEDICAL PLAZA 4320 WORNALL RO KANSAS CITY, MO 64111	U	HOEPER, SAML O 12921 GRANVIEW RO GRANOVIEV, MO 64030	GP	JACOBS, WALTER H 6656 MILHAVEN ORIVE MISSION, KS 66202	GE
HARRIS, OAVIO J CHILORENS MERCY HOSP 24TH AT GILLNAM RD KANSAS CITY, MO 64108	PO	HOEPER, SAMUEL O JR. 12921 GRANVIEW RO GRANOVIEV, MO 64030	IM	JACOBSON, MICHAEL 1734 E. 63RD ST. KANSAS CITY, MO 64110	NEP
HARRIS, LANNY W 8708 BIRCH LANE PRAIRIE VILLAGE, KS 66207	ORS	HOF, OAVIO G 530 MEDICAL PLAZA 4320 WORNALL RO. KANSAS CITY, MO 64111	PUO	JAMES, OTIS E 6306 MORNINGSIOE OR KANSAS CITY, MO 64113	ORS
HARRIS, WELDON L 17221 E 23RD ST INOEPENOENCE, MO 64057	PO	HOFFMAN, JACOB S APT. 908 221 W. 48TH ST. KANSAS CITY, MO 64112	IM	JAZBI, BASHARAT U CHILDRENS MERCY HOSP 24TH & GILLHAM KANSAS CITY, MO 64108	OTO
HART, L W 4400 BROADWAY STE 202 KANSAS CITY, MO 64111	CHP	HOFFMANN, ALAN L 6300 EVANSTON KANSAS CITY, MO 64133	FP	JELLEY, V C 1600 W 40 HIGHWAY SUITE 102 BLUE SPRINGS, MO 64015	OM
HARTMAN, GREGORY L 224 MEDICAL PLAZA 4320 WORNALL RO KANSAS CITY, MO 64111	IM	HOFFMANN, LEE M 5017 MISSION RO SHAWNEE MISSION, KS 66205	PO	JENAB, MORTEZA J 6700 TROOST, SUITE 300 KANSAS CITY, MO 64131	CD
HARTWIG, FREDERICK H 6400 PROSPECT AVE KANSAS CITY, MO 64132	GS	HOLGER, THOS M 509 BROADWAY MEO BLDG 4400 BROADWAY KANSAS CITY, MO 64111	POS	JENKINS, DAVIO C COMMUNITY BLOOO CTR 4040 MAIN KANSAS CITY, MO 64111	CLP
HARTWIG, RAYMONO W 6546 WENONGA RO SHAWNEE MISSION, KS 66208	R	HOLLINGER, LLOYD A 6700 TROOST KANSAS CITY, MO 64131	PUO	JENNETT, J H 1500 PROF BLDG 1103 GRA KANSAS CITY, MO 64106	IM
HAUSHEER, HERMAN J 1515 W TRUMAN RO STE 30 INOEPENOENCE, MO 64050	OBG	HOLLWEG, KENNETH C 4320 WORNALL RO KANSAS CITY, MO 64111	R	JOHNSON, C L 2929 BALTIMORE KANSAS CITY, MO 64108	U
HAYS, LARRY V 4320 WORNALL KANSAS CITY, MO 64111	GS	HOLMAN, JOS G 4620 J C NICHOLS PKWY KANSAS CITY, MO 64112	A	JOHNSON, OALLAS A 6700 TROOST STE 304 KANSAS CITY, MO 64131	O
HAZEN, ROBT M 6400 PROSPECT AVE KANSAS CITY, MO 64132	OTO	HOLT WALDO S 4620 J C NICHOLS PKWY KANSAS CITY, MO 64112	IM	JOHNSON, GARETH R 23RD & R O MIZE RD INOEPENOENCE, MO 64057	PTH
HAZUKA, OAVIO F 4036 WEST 104TH TERR SHAWNEE MISSION, KS 66207	OR	HOLTON, EOWARO B 10901 WINNER RD INOEPENOENCE, MO 64052	GP	JOHNSON, JAMES S 4301 CLEVELANO KANSAS CITY, MO 64130	OBG
HEALY, BRIAN E 426 CARONOELET MEO. BLOG. 1010 CARONOELET OR. KANSAS CITY, MO 64114	ORS	HOOK, WALLER G 10010 EL MONTE SHAWNEE MISSION, KS 66207	CRS	JOHNSON, JOS E 707 W MONTCREW KANSAS CITY, MO 64114	FP
HEILMAN, EOWARO J 6700 TROOST RM 604 KANSAS CITY, MO 64131	IM	HOPKINS, JAMES P 6700 TROOST AVE KANSAS CITY, MO 64131	PS	JOHNSON, NELSON E 4301 CLEVELANO KANSAS CITY, MO 64130	OBG
HELLERSTEIN, STANLEY CHILORENS MERCY HOSP KANSAS CITY, MO 64108	PO	HORNSTRA, ROBTIN K 6724 TROOST KANSAS CITY, MO 64131	P	JOHNSON, RICHARO L 6400 PROSPECT STE 333 KANSAS CITY, MO 64132	IM
HELLING, THOMAS S 4320 WORNALL RO. 308 MEDICAL PLAZA KANSAS CITY, MO 64111	GS	HOWARD, CAMPBELL P CHILORENS MERCY HOSP. 24TH AND GILLHAM RO. KANSAS CITY, MO 64108	PO	JOHNSON, THOMAS W 210 WEST 99TH TERRACE KANSAS CITY, MO 64114	FP
HELLMAN, RICHARO 2411 HOLMES KANSAS CITY, MO 64108	IM	HUGHES, MICHAEL F 1010 CARONOELET OR. SUITE 224 KANSAS CITY, MO 64114	OTO	JOHNSON, THOS M 8127 EL MONTE SHAWNEE MISSION, KS 66208	GS
HELMAN, RICHARO G INOIAN CREEK NURSING CTR. 12000 WORNALL RM 702 KANSAS CITY, MO 64145	OBG	HUGHES, ROBERT E 4400 BROADWAY KANSAS CITY, MO 64111	PO	JOHNSON, WARREN L 410 MEDICAL PLAZA 4320 WORNALL RO KANSAS CITY, MO 64111	CO
HEMAYA, RIZK M 600 E 22ND ST KANSAS CITY, MO 64108	P	HUNGATE, CARROLL P 522 PROFESSIONAL BLDG 1103 GRANO AVE KANSAS CITY, MO 64106	OM	JONAS, HARRY S OEAN UMKC SCHOOL OF MEO 2411 HOLMES KANSAS CITY, MO 64108	OBG
HENRY, CLARKE L 4320 WORNALL RD KANSAS CITY, MO 64111	TS	HUNKELER, JOHN O 230 PENN PARK BLDG 2928 MAIN KANSAS CITY, MO 64108	OPH	JONES, GALE O 6400 PROSPECT STE 142 KANSAS CITY, MO 64132	AN
HERDOIZA, ALFONSO W 751 E 63RD ST KANSAS CITY, MO 64110	AN	HUNT, THOS R 6400 PROSPECT AVE KANSAS CITY, MO 64132	NS	JONES, MARION E 2462A BROOKLYN AVE KANSAS CITY, MO 64127	U
HERMAN, EOWIN M 900 HIGHLANO PROF TOWER 6724 TROOST KANSAS CITY, MO 64131	R	HUNZICKER, WARREN J 1248 STRATPORO RO. KANSAS CITY, MO 64113	IM	JONES, SAML T 9915 CHEROKEE LN SHAWNEE MISSION, KS 66206	OPH
HERVEY, WM H WORNALL RO AT 44TH KANSAS CITY, MO 64111	AN	HUSE, WM J 2929 BALTIMORE KANSAS CITY, MO 64108	OBG	JONES, T R 4320 WORNALL RO SUITE 6 KANSAS CITY, MO 64111	IM
HERYER, JOHN W 3910 W. 103RD ST. OVERLANO PARK, KS 66207	GS	HUSTON, KENT A 4320 WORNALL RD MEO PLAZA BLO ST 212 KANSAS CITY, MO 64111	IM	JOYCE, STEVEN T 610 MEDICAL PLAZA 4320 WORNALL RO. KANSAS CITY, MO 64111	ORS
HIBBARO, BLAINE Z 4320 WORNALL RO KANSAS CITY, MO 64111	IM	HUTSON, BRUCE P 4400 BROADWAY SUITE 306 KANSAS CITY, MO 64111	EM	JUOY, BERNARO O 310 CARONOELET MEO. BLDG. 1010 CARONOELET OR. KANSAS CITY, MO 64114	IM
HICKERSON, WM H 604 W MAPLE INOEPENOENCE, MO 64050	GP	HYOE, LAWRENCE L 230 PENN PARK MEO BLDG 2928 MAIN ST KANSAS CITY, MO 64108	OPH	JUSTUS, JOHN B 4620 J C NICHOLS PKWY KANSAS CITY, MO 64112	IM
HIGGINS, RONALO A 340 CARONOELET MEO OFF 1010 CARONOELET OR KANSAS CITY, MO 64114	O	IBARRA, GUILLERMO 4400 BROADWAY KANSAS CITY, MO 64111	P	KABACK, KEITH R 9314 BALES APT. 301 KANSAS CITY, MO 64132	IM
HILL, JACK H 8115 MEADOW LANE SHAWNEE MISSION, KS 66206	PTH	INGHAM, WALTON C 4320 WORNALL RO KANSAS CITY, MO 64111	GS	KAHN, MARVIN STATLANO CLINIC 6724 TROOST-STE 710 KANSAS CITY, MO 64131	IM
HINK, FREDERICK W 10229 INOEPENOENCE AVE INOEPENOENCE, MO 64053	GP	IRVINE, JOHN W 8800 E 60RD ST RAYTOWN, MO 64133	OPH	KANAREK, JOSEPH 601 E 63RD ST KANSAS CITY, MO 64110	PO
HIRSCH, JOE E 510 PLAZA PARKWAY BLDG 4620 JC NICHOLS PKWY KANSAS CITY, MO 64112	CRS	IRWIG, FRED 4706 BROADWAY KANSAS CITY, MO 64112	IM	KANOT, RAYMONO E 416 CARONOELET MEDICAL 1010 CARONOELET OR KANSAS CITY, MO 64114	OPH
HOADLEY, WM O KU MEO. CTR. BLDG 206A 39TH & RAINBOW BLVO. KANSAS CITY, KS 66103	IM	JACKSON, DOROTHY 11722 SMALLEY KANSAS CITY, MO 64134	IM	KANTOR, JULIUS M 601 E 63RD ST KANSAS CITY, MO 64110	PO
HODGSON, FRANK H 4301 MAIN ST KANSAS CITY, MO 64111	GS	JACKSON, HAYWOOD R 3317 E 43RD ST KANSAS CITY, MO 64130	IM	KANTOR, SAML 6700 TROOST KANSAS CITY, MO 64131	OPH

COMPONENT SOCIETY ROSTER

KARTUS, IRVING PO BOX 6453 LEAWOOD, KS 66206	P	KIMBLE, HARVEY S 9841 NALL AVE. SHAWNEE MISSION, KS 66207	AN	LANGLEY, HARRIET S 5900 STATE LINE RD SHAWNEE MISSION, KS 66208	IM
KATZ, SANDRA B TRUMAN MED. CTR. 2301 HOLMES KANSAS CITY, MO 64108	DPH	KINDRED, LYNN H 4320 WORNALL KANSAS CITY, MO 64111	CD	LAPI, ANGELD 2012 STRATFORD RD SHAWNEE MISSION, KS 66208	PTH
KAUFMAN, ANDREW B 400 ROCKHILL MEO. BLO. 6700 TROOST KANSAS CITY, MO 64131	NS	KING, JAY T 4320 WORNALL RD. KANSAS CITY, MO 64111	CD	LAPP, HARRY C 612 SHAMROCK 211 VILLA I LEE'S SUMMIT, MO 64063	GS
KAUFMANN, HERBERT H 6724 TROOST STE 210 KANSAS CITY, MO 64131	OBG	KINGSBURY, HELEN 6415 SAGAMORE RO SHAWNEE MISSION, KS 66208	AN	LARSEN, WM E 2929 BALTIMORE KANSAS CITY, MO 64108	IM
KAUL, PHILIP G 4320 WORNALL RO KANSAS CITY, MO 64111	IM	KIRCHMER, JOHN T 6724 TROOST AVE KANSAS CITY, MO 64131	GS	LATHAM, RAYMOND W 4400 BROADWAY KANSAS CITY, MO 64111	PD
KAY, BILLY F 10326 SAGAMORE LANE SHAWNEE MISSION, KS 66206	IM	KITCHEN, WM M 2929 BALTIMORE AVE KANSAS CITY, MO 64108	R	LAUER, OANL J 236 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	IM
KAYANAN, JOSE C 335 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	GS	KLEIN, EDWARD H 7011 RAE AVE PRAIRIE VILLAGE, KS 66208	GS	LAYLE, JOHN K 4320 WORNALL KANSAS CITY, MO 64111	IM
KEAIRNES, HAROLO W SWOPE PARKWAY COM HEALTH CTR 4900 SWOPE PARKWAY KANSAS CITY, MO 64130	IM	KLOTZ, STEPHEN A 7437 BELINDER SHAWNEE MISSION, KS 66208	IM	LAYTON, IRA C 6400 PROSPECT AVE STE 3 KANSAS CITY, MO 64132	IM
KEELER, JAMES E 4400 BROADWAY-SUITE 302 KANSAS CITY, MO 64111	OBG	KNIGHT, LYLE B 108 MAOISON LEE'S SUMMIT, MO 64063	D	LEE, GERALO B 101 MEMORIAL OR KANSAS CITY, MO 64108	CD
KEITGES, PIERRE W PHYSICIANS REF. LAB. 1010 W. CARONDELET DR KANSAS CITY, MO 64114	PTH	KNIGHTEN, YVONNE M 1515 TRUMAN RD. SUITE 3D2 INOEPENOEENCE, MO 64050	R	LEE, HENRY A 6700 TROOST 352 ROCKHILL MED BLD KANSAS CITY, MO 64131	R
KELLING, OOUGLAS G 11021 WEST 96TH TERRACE OVERLANO PARK, KS 66214	OM	KNOCH, H K 328 ST JOSEPH MEO BLDG 1010 CARONOELET OR KANSAS CITY, MO 64114	OBG	LEE, KING Y 6700 TROOST AVE KANSAS CITY, MO 64131	OPH
KELLY, CHARLES R ST. LUKE'S HOSP 44TH AND WORNALL RO. KANSAS CITY, MO 64111	PM	KOON, BENNY H GOPPERT FAMILY CARE CTR 6601 ROCKHILL RO KANSAS CITY, MO 64131	FP	LEE, LAWRENCE E 10102 GILLETTE LENEXA, KS 66215	TR
KELTNER, RAYMONO O 4400 BROADWAY-SUITE 302 KANSAS CITY, MO 64111	OBG	KOONTZ, PAUL G 4320 WORNALL RD KANSAS CITY, MO 64111	GS	LEE, TAE H 300 THE CITAOEL 1743 E. 63RD ST. KANSAS CITY, MO 64110	NEP
KENOALL, CHAS A 4240 BLUE RIDGE BLVO KANSAS CITY, MO 64133	IM	KOPPERMAN, MORDECAI 900 HIGHLAND PROFESSION 6724 TROOST KANSAS CITY, MO 64131	DR	LEES, JOYCE M TRINITY LUTHERAN HOSP 31ST & WYANDOTTE ST KANSAS CITY, MO 64108	GS
KENOALL, FORREST H SUITE 224 1010 CARONDELET OR KANSAS CITY, MO 64114	OTO	KOPPERS, LAWRENCE E 208 MEOICAL PLAZA 4320 WORNALL KANSAS CITY, MO 64111	IM	LEESE, PHILIP T 6120 LAMAR AVE. MISSION, KS 66202	EM
KENDALL, MALCOLM E 6724 TROOST KANSAS CITY, MO 64131	CD	KORTH, WM M 6300 MIDNIGHT PASS RO V SARASOTA, FL 33581	GS	LEGARDA, MARIA M P. O. BOX 7253 KANSAS CITY, MO 64113	N
KENISTON, WILLIAM O III 3941 WILLOW APT. 103 KANSAS CITY, MO 64133	IM	KOSURI, LALITHA TRUMAN MED CTR 2301 HOLMES KANSAS CITY, MO 64108	IM	LEHNER, RICHARD L MEOICAL PLAZA BLOG SUIT 4320 WORNALL RO KANSAS CITY, MO 64111	CD
KENNARO, G K 4400 BROADWAY KANSAS CITY, MO 64111	GS	KOURY, WILLIAM C 4320 WORNALL RO STE 710 KANSAS CITY, MO 64111	OR	LEIBSOHN, JOEL M 1515 W TRUMAN RO INDEPENDENCE, MO 64050	OPH
KENNEDY, FROO R 4320 WORNALL RO KANSAS CITY, MO 64111	GS	KRAFT, JACOB 6700 TROSST KANSAS CITY, MO 64131	GS	LEIFER, WM W 703 HIGHLANOS PROF TOWE 6724 TROOST KANSAS CITY, MO 64131	U
KENNEDY, TIMOTHY O 2929 BALTIMORE ST E340 KANSAS CITY, MO 64108	R	KRANSON, SEYMOUR J 909 W JOHSTON AVE HEMET, CA 92343	PO	LENTZ, CLARK H P O BOX 458 31ST & SOUTHWEST TWY KANSAS CITY, MO 64141	OM
KENNEY, JOHN O SUITE 12 751 E 63RO ST KANSAS CITY, MO 64110	AN	KUHN, WM F 6247 BROOKSIDE BLVO KANSAS CITY, MO 64113	OM	LENTZ, HAROLD C 55TH TERR AND NOLANO RD KANSAS CITY, MO 64133	U
KENT, BELA K 6724 TROOST AVE KANSAS CITY, MO 64131	OBG	KUNZ, STEPHEN R 10348 CHEROKEE LEAWOOD, KS 66206	R	LERNER, BRUCE 10621 W. 102ND ST. SHAWNEE MISSION, KS 66214	AN
KEPES, MAGOA 6612 BROOKLYN AVE. KANSAS CITY, MO 64132	PTH	KURTZ, KARL J 4400 BROADWAY SUITE 412 KANSAS CITY, MO 64111	U	LEVEY, HARRY B 310 HIGHLANOS PROFESSIO 6724 TROOST KANSAS CITY, MO 64131	OBG
KERNOOLE, JEFFERSON D P O BOX 2778 KANSAS CITY, MO 64142	PTH	KYGER, JOHN E 3612 BLUE RIDGE BLVD INOEPENOEENCE, MO 64052	AN	LEWIS, FRANK H 1515 W. TRUMAN RD. SUITE 403 INDEPENDENCE, MO 64050	IM
KERR, HAROLD H 8121 NW MIAMI ST KANSAS CITY, MO 64152	TS	LABACH, JAMES P TRUMAN MEO CTR. 2301 HOLMES KANSAS CITY, MO 64108	PTH	LEWIS, REVIS C PENN PARK MEO BLOG STE 2929 BALTIMORE KANSAS CITY, MO 64108	NS
KETTERMAN, GRACE H CRITTENTON CENTER 10918 ELM AVE. KANSAS CITY, MO 64134	CHP	LABAYEN, RICAROO A 7031 SANTA FE DR. SHAWNEE MISSION, KS 66204	GS	LEWITTON, SOLOMON 410 HIGHLAND PROF TOWER 6724 TROOST KANSAS CITY, MO 64131	GS
KETTERMAN, HERBERT L 11201 COLORADO KANSAS CITY, MO 64137	GP	LAL, ROOP APT. 105 8009 CAMPBELL KANSAS CITY, MO 64131	IM	LIANG, JING C 17221 E 23RD INOEPENOEENCE, MO 64057	GS
KHARE, NARENDRA K TRUMAN MEO. CTR. 2301 HOLMES KANSAS CITY, MO 64108	U	LALLY, JAMES J 4620 NICHOLS PKWY KANSAS CITY, MO 64112	GS	LICHTOR, JOS M 6724 TROOST SUITE 409 KANSAS CITY, MO 64131	ORS
KHARE, PRATIBHA 7909 SAGAMORE SHAWNEE MISSION, KS 66206	AN	LAMAR, ROBT F 5140 ANTIOCH RD NE KANSAS CITY, MO 64119	OBG	LINDGREN, CARLETON J 4240 BLUE RIDGE BLVO KANSAS CITY, MO 64133	P
KHOURY, CECILE S 10204 HOWE LANE LEAWOOD, KS 66206	AN	LAMBERT, LAURA M 1039 PARKWOOD DR ORMONO BEACH, FL 32074	GP	LINOQUIST, CARL N RT 4 BOX 150 REBOS SPRING, MO 65737	OM
KIENE, RICHARO H 4320 WORNALL RD KANSAS CITY, MO 64111	ORS	LAMBIE, ROOGER W 900 HIGHLAND PROF TOWER 6724 TROOST KANSAS CITY, MO 64131	R	LINK, VANCE E 1515 W TRUMAN RD STE 30 INOEPENOEENCE, MO 64050	FP
KILLEN, OUNCAN A 510 MED PLAZA BLDG 4320 WORNALL RO KANSAS CITY, MO 64111	TS	LANDERS, BURNELL 6400 PROSPECT SUITE 300 KANSAS CITY, MO 64132	GE	LINVILLE, HOWARO E 6700 TROOST AV STE 444 KANSAS CITY, MO 64131	GS
KIMBALL, MERRITT H 610 E 36TH KANSAS CITY, MO 64109	AN	LANDIS, GEO K 1102 GRAND AVE KANSAS CITY, MO 64106	IM		

LITTON, NANCY J SUITE 2D6 1600 WEST HIGHWAY 4D BLUE SPRINGS, MO 64D15	PTH	MARTIN, CATALINO V 1D1 MEMORIAL DR ST MARYS HOSPITAL KANSAS CITY, MO 641D8	AN	MC LAUGHLIN, DURNELL 1734 EAST 63RD ST SUITE 5D2 KANSAS CITY, MO 6411D	OPH
LIU, BEN C 31D HIGHLANDS PROFESSIO 6724 TROOST KANSAS CITY, MO 64131	OBG	MARTIN, CLYDE V 8D0 W 47TH ST KANSAS CITY, MO 64112	P	MC LEMORE, WILLIE O UMKC SCHOOL OF MEDICINE 2411 HOLMES KANSAS CITY, MO 64108	IM
LOCKWOOD, GARY F 432D WORNALL RD STE 52D KANSAS CITY, MO 64111	OBG	MASON, WAYNE E 670D TROOST STE 352 KANSAS CITY, MO 64131	R	MC MILLAN, THOS E 82D1 DEARBORN DR SHAWNEE MISSION, KS 66208	U
LOCKWOOD, TED E 44DD BROADWAY KANSAS CITY, MO 64111	PS	MASUCCI, JOS M 6DD ARGYLE BLDG 306 EAST 12 ST KANSAS CITY, MO 641D6	OM	MC NABNEY, W K TRUMAN MEDICAL CTR 2301 HOLMES KANSAS CITY, MO 641D8	TRS
LOHRENTZ, LOIS H 2800 W 50TH TERRACE SHAWNEE MISSION, KS 662D5	AN	MATOVICH, VIOLET B UNIV. OF MO. K. C. 2411 HOLMES KANSAS CITY, MO 64108	N	MC NUTT, THEODORE L LEES SUMMIT CLINIC 615 W 3RD STREET LEE'S SUMMIT, MO 64063	GP
LONG, R S 66D1 ROCKHILL ROAD KANSAS CITY, MO 64131	FP	MATTA, CAMILLE S 4240 BLUE RIDGE BLVD KANSAS CITY, MO 64133	OPH	MEDLEY, BENJAMIN E 101D CARONDELET DR SUITE 114 KANSAS CITY, MO 64114	DR
LOPEZ-PLATA, ROBERTO 7D1 E 63RD STREET KANSAS CITY, MO 64110	GS	MAULDIN, OLIN B JR 373 WEST 101ST TERR. KANSAS CITY, MO 64114	PD	MEDLICOTT, WILLIAM J 432D WORNALL RD KANSAS CITY, MO 64111	ORS
LORD, JAMES L 1515 W TRUMAN ROAD SUITE 5D4 INDEPENDENCE, MO 64050	FP	MAYER, JOHN H 503 PLAZA PKWY BLDG 4620 J C NICHOLS PKW KANSAS CITY, MO 64112	TS	MEEGAN, ROBT J 2929 BALTIMORE AVE KANSAS CITY, MO 641D8	R
LORENZO, EDILBERTO B 1820 W 91ST PLACE KANSAS CITY, MO 64114	CHP	MC AFEE, ROBT G 4121 WEST 83RD ST. SUITE 150 SHAWNEE MISSION, KS 662D8	P	MEHTA, SATISH K 7D1 E 63RD #312 KANSAS CITY, MO 6411D	IM
LORENZO-MEDINA, REMEDIOS 509 W 119TH TERR KANSAS CITY, MO 64145	IM	MC ALLISTER, CHARLES K BROOKE ARMY MEDICAL CTR. BEACH PAVILLION FT. SAM HOUSTON, TX 78234	IM	MEIKLEJOHN, DUNCAN C 2116 S STERLING INDEPENDENCE, MO 64D52	OBG
LOTUACO, GAMALIEL G 4400 BROADWAY KANSAS CITY, MO 64111	PS	MC CALLISTER, BEN D 432D WORNALL RD KANSAS CITY, MO 64111	CD	MELGAARD, SVEN R 66D1 ROCKHILL ROAD KANSAS CITY, MO 64131	AN
LOUTZENHISER, JAMES K 64DD PROSPECT KANSAS CITY, MO 64132	P	MC CANSE, ANDREW 432D WORNALL RD STE 332 KANSAS CITY, MO 64111	GS	MENENDEZ, JOSE O P. O. BOX 748 INDEPENDENCE, MO 64D52	P
LUETJE, CHARLES M 105 PENN PARK 2928 MAIN KANSAS CITY, MO 641D8	OTO	MC CANSE, LYNN R 4320 WORNALL RD KANSAS CITY, MO 64111	U	MERVEILLE, OCTAVE C 24TH AND GILLHAM RD KANSAS CITY, MO 64108	OS
LYDDON, HAROLD R 1221 W. 67TH ST. KANSAS CITY, MO 64113	FP	MC CLANAHAN, ROBT C 11D2 GRANT AVENUE KANSAS CITY, MO 641D6	IM	METZL, KURT 6D1 E 63RD KANSAS CITY, MO 64110	PD
MABEN, SAM E 94D6 E 63RD KANSAS CITY, MO 64133	IM	MC CONAHAY, DAVID R 4320 WORNALL ROAD KANSAS CITY, MO 64111	CD	MEYER, PAUL W 61D MEDICAL PLAZA 432D WORNALL RD. KANSAS CITY, MO 64111	ORS
MAC GEE, EDWIN E 4440 BROADWAY KANSAS CITY, MO 64111	NS	MC CONCHIE, JAMES E 1515 TRUMAN RD. INDEPENDENCE, MO 64050	R	MEYER, ROBERT D 1D6 WEST 66TH TERR. KANSAS CITY, MO 64113	IM
MAC INNIS, FLORENCE E 5D3 PLAZA PARKWAY BLDG. 462D J.C. NICHOLS PKWY. KANSAS CITY, MO 64112	PUD	MC COY, FREDERICK J 4177 BROADWAY KANSAS CITY, MO 64111	PS	MIKKELSEN, NANCY R 39D5 N.E. 59TH ST. KANSAS CITY, MO 64119	IM
MAC NAUGHTON, RALPH E CARONDELET RADIOLOGY IN 1D10 CARONDELET DR R KANSAS CITY, MO 64114	DR	MC CRAY, GLEN M 24TH & GILLHAM RDS KANSAS CITY, MO 641D8	CHP	MILES, GEO O 432D WORNALL RD KANSAS CITY, MO 64111	GS
MAC NAUGHTON, ROBT A CARONDELET RADIOLOGY IN 1D1D CARONDELET DR R KANSAS CITY, MO 64114	R	MC CULLOUGH, CAMPBELL C JR. WAYNE MINER HEALTH CTR. 826 EUCLID AVE. KANSAS CITY, MO 64124	ORS	MILGRAM, BYRON A 6724 TROOST KANSAS CITY, MO 64131	P
MACDONALD, ROBIN R 352 ROCKHILL MED. BLDG. 6700 TROOST KANSAS CITY, MO 64131	DR	MC DONALD, HERBERT L 67D0 TROOST AVE KANSAS CITY, MO 64131	TS	MILLER, CLINT L 615 W 3RD ST LEE'S SUMMIT, MO 64D63	OM
MAHMOUD, SAID 7643 GODDARD DR. SHAWNEE MISSION, KS 66214	IM	MC DONNELL, JOHN F 4320 WORNALL RD KANSAS CITY, MO 64111	IM	MILLER, GERALD L 2929 BALTIMORE STE 20D KANSAS CITY, MO 64108	OBG
MAIS, THOMAS E ST. LUKE'S HOSPITAL 44TH & WORNALL RD KANSAS CITY, MO 64111	R	MC ELROY, CARLA N ST MARYS HOSPITAL EMERG DEPT - 1D1 MEMORIAL KANSAS CITY, MO 641D8	GP	MILLER, GERALD L JR SUITE 212 RESEARCH MEDICAL OFF KANSAS CITY, MO 64132	OBG
MALLOUK, ALEXANDER G 4320 WORNALL RD STE 514 KANSAS CITY, MO 64111	IM	MC FARLAND, H R 432D WORNALL KANSAS CITY, MO 64111	N	MILLER, MAX I 5620 HIGH DR SHAWNEE MISSION, KS 66208	AN
MALLOW, JAMES E 2401 WEST 93RD ST. SHAWNEE MISSION, KS 66206	PUD	MC FARLAND, M D 432D WORNALL RD KANSAS CITY, MO 64111	IM	MILLER, MICHAEL R WAYNE MINER HEALTH CENTER 825 EUCLID AVE. KANSAS CITY, MO 64124	IM
MAMALIS, NICHOLAS D 1601 CLUBHOUSE DR., N.E. APT. 2D1 KANSAS CITY, MO 64116	IM	MC GANNON, PAUL T 64DD PROSPECT KANSAS CITY, MO 64132	GS	MILLER, WILSON H 511 PLAZA PKWY BLDG 462D NICHOLS PKWY KANSAS CITY, MO 64112	IM
MANGELS, KENNETH A 1612 W TRUMAN RD INDEPENDENCE, MO 64D50	GP	MC GUIRE, THOS H 1D55D QUIVIRA RD OVERLAND PARK, KS 66215	OBG	MINNIGERODE, LANA K REHABILITATION INST. 3011 BALTIMORE KANSAS CITY, MO 641D8	PM
MANGUM, WILLIAM B 434 BLUE RIDGE TOWER 4240 BLUE RIDGE BLVD KANSAS CITY, MO 64133	OTO	MC INTOSH, DONALD E 64DD PROSPECT KANSAS CITY, MO 64132	AN	MINNIGERODE, TURNER L 2316 E MEYER BLVD KANSAS CITY, MO 64132	IM
MANION, THOS S 1515 TRUMAN RD INDEPENDENCE, MO 6405D	U	MC INTYRE, JOHN D 4948 WESTWOOD RD KANSAS CITY, MO 64112	PD	MIR, ABDUL R 1734 E 63RD ST KANSAS CITY, MO 6411D	IM
MANUEL, LOUIS C 1734 E 63RD ST KANSAS CITY, MO 6411D	OPH	MC KEE, FRANK E 112D1 COLORADO KANSAS CITY, MO 64137	AN	MITCHELL, ANDREW D 432D WORNALL RD KANSAS CITY, MO 64111	U
MARKS, MARK M 6537 SUMMIT ST KANSAS CITY, MO 64113	CRS	MC KEE, WALLACE P 432D WORNALL RD KANSAS CITY, MO 64111	OPH	MITCHELL, JOHN D 220 PENN PARK 2928 MAIN KANSAS CITY, MO 64108	U
MARSH, ALICE PLEASANT HILL, MO 64080	PD	MC KEEL, THOS B 615 HIGHLAND PROF 6724 TROOST KANSAS CITY, MO 64131	IM	MITCHELL, ROBT H 410 BRYANT BLDG 11D2 GRAND AVE KANSAS CITY, MO 64106	OBG
MARSHALL, CAMERON F C/O CAROL MARSHALL 11D7 TOPEKA ST. EMPORIA, KS 668D1	OBG	MC KNELLY, WM V 39TH & RAINBOW BLVD KANSAS CITY, KS 661D3	IM	MITRA, NIRMAL K 112TH TERR & GRANDVIEW KANSAS CITY, MO 64137	PD
MARSHALL, HAL E 4949 ROCKHILL RD KANSAS CITY, MO 6411D	PTH		P		

MIXSON, WM C 4320 WORNALL RD KANSAS CITY, MO 64111	OBG	MUTH, ROBT G 8229 BELINDER RD. SHAWNEE MISSION, KS 66206	NEP	OWENS, JAMES L 302 BROADWAY MED. BLDG 4400 BROADWAY KANSAS CITY, MO 64111	OBG
MONTELLO, SAMUEL A 10550 QUIVIRA RD OVERLAND PARK, KS 66215	OBG	MYERS, ANDREW I 10550 QUIVIRA RD. SUITE 480 SHAWNEE MISSION, KS 66215	EM	OWENS, RICHARD L 17 COMPTON CT PRAIRIE VILLAGE, KS 66208	FP
MOOK, DAVID G 9734 WORNALL KANSAS CITY, MO 64114	IM	MYERS, GEO H 1010 CARONDELET DR KANSAS CITY, MO 64114	U	OWENS, ROBT H 6700 TROOST 408 KANSAS CITY, MO 64131	U
MOONEY, JUSTIN L 6740 W 52ND PL SHAWNEE MISSION, KS 66202	D	MYERS, JOHN S 425 HUNTINGTON RD KANSAS CITY, MO 64113	OM	OXLEY, DWIGHT K 5105 SOMERSET DR. PRAIRIE VILLAGE, KS 66207	CLP
MOORE, DAVID L 4400 BROADWAY KANSAS CITY, MO 64111	GS	MYERS, ROBT M 333 W. MEYER BLVD. APT 908 KANSAS CITY, MO 64113	FP	OZAR, MILTON B 1206 W 62ND KANSAS CITY, MO 64113	U
MOORE, JACK D 4320 WORNALL RD KANSAS CITY, MO 64111	U	MYRON, MARK C 8300 TROOST AVE KANSAS CITY, MO 64131	IM	PACK, GARY L SUITE 117 4706 BROADWAY KANSAS CITY, MO 64112	N
MOORE, JOHN M 3636 GILLHAM RD. KANSAS CITY, MO 64111	IM	NAIME, MANSOUR J 136 ROCKHILL MED BLDG 6700 TROOST KANSAS CITY, MO 64131	PD	PADULA, RICHARD T 207 HIGHLAND PROFESSION 6724 TROOST KANSAS CITY, MO 64131	TS
MOORE, Y. SCOTT WESTERN MO MENT. HLTH CTR. 600 E. 22ND ST. KANSAS CITY, MO 64108	FP	NELSON, BENTLEY A 1010 CARONDELET DR. SUITE 224 KANSAS CITY, MO 64114	OTO	PAKULA, SIDNEY F P O BOX 8552 10839 STATE LINE RD KANSAS CITY, MO 64114	PD
MOREANO, ARMANDO H 21 W 43RD ST KANSAS CITY, MO 64111	GP	NESSELRODE, JOHN H 1515 W TRUMAN RD STE 402 INDEPENDENCE, MO 64050	GS	PALAZOLA, JOSEPH M 4320 WORNALL SUITE 440 KANSAS CITY, MO 64111	IM
MOREST, F S 2298 SE HARRISON STUART, FL 33494	IM	NEUMANN, JAMES W 2929 BALTIMORE STE 215 KANSAS CITY, MO 64108	N	PALMER, JOHN O 4008 E.107TH ST. KANSAS CITY, MO 64137	IM
MORGAN, OAVID B 4620 J C NICHOLS PKWY KANSAS CITY, MO 64112	D	NEWMAN, ROBT L ST LUKES HOSP 44TH & WORNALL RD KANSAS CITY, MO 64111	OBG	PAELMAN, ALLEN G 6724 TROOST AVE #303 KANSAS CITY, MO 64131	OPH
MORGAN, WM R CARONDELET MEDICAL BLDG 1010 CARONDELET DR-S KANSAS CITY, MO 64114	PS	NICHOLIS, GEORGE R 373 W. 101ST TERR. KANSAS CITY, MO 64114	PD	PARKER, HUBERT M 2929 BALTIMORE SUITE 43 KANSAS CITY, MO 64108	CD
MORLEY, LOUISE A 4907 NEOSHO SHAWNEE MISSION, KS 66205	GP	NICKELL, BARRY L 132 MEDICAL PLAZA 4320 WORNALL RD. KANSAS CITY, MO 64111	IM	PARKINS, GEORGE K 500 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	ORS
MORRIS, J H 4240 BLUE RIOGE BLVD KANSAS CITY, MO 64133	IM	NIELSON, MICHAEL H 1515 W TRUMAN RO ST 306 INDEPENDENCE, MO 64050	OBG	PARSONS, EUGENE O 145 STATE LINE KENNETH STANLEY, KS 66223	GS
MORRIS, TERRY V 1515 W. TRUMAN RO. INDEPENDENCE, MO 64050	OBG	NIGRO, EDWARD R 1340 S OCN BLV #2209 POMPANO BEACH, FL 33062	CO	PATTISON, CHARLES P 540 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	GE
MORRISON, DONALO H 4545 WORNALL RO KANSAS CITY, MO 64111	AN	NIGRO, JOS A 5715 WINDSOR DR SHAWNEE MISSION, KS 66205	GS	PAWSAT, JOHN E 1210 W 58TH ST KANSAS CITY, MO 64113	ORS
MORRISON, J S 424 NICHOLS RD KANSAS CITY, MO 64112	P	NIGRO, THOMAS L TRUMAN MEDICAL CENTER 2301 HOLMES KANSAS CITY, MO 64108	GS	PECORARO, ANTHONY P 4400 BROADWAY KANSAS CITY, MO 64111	PD
MOSBACHER, HUGH E 109 IRONBARK LAKEWOOD LEE'S SUMMIT, MO 64063	PS	NOBACK, RICHARDSON K UMKC SCHOOL OF MED 2411 HOLMES KANSAS CITY, MO 64108	GS	PEETE, DON C 9012 WEST 102ND ST. SHAWNEE MISSION, KS 66212	CD
MOSS, PAUL 4706 BROAOWAY KANSAS CITY, MO 64112	GE	NOLTENSMYER, MILTON H 3305 W 50TH TERR SHAWNEE MISSION, KS 66205	IM	PEMBERTON, LOARN B TRUMAN MEICAL CENTER 2301 HOLMES KANSAS CITY, MO 64108	GS
MOUNTFORD, DAMON W 9503 E 63RD ST KANSAS CITY, MO 64133	EM	NOVAK, EOWARO J 3011 BALTIMORE KANSAS CITY, MO 64108	AN	PENNER, STANLEY 1010 CARONDELET OR. KANSAS CITY, MO 64114	PO
MUELLER, MARTIN J 6400 PROSPECT SUITE 316 KANSAS CITY, MO 64132	IM	O'FARRELL, THOS P 300 RESEARCH MED OFFICE 6400 PROSPECT KANSAS CITY, MO 64132	PM	PERLL, MAURICE F 1010 CARONDELET DR. #426 KANSAS CITY, MO 64114	ORS
MUENCH, LAURENCE W 9010 SAGAMORE SHAWNEE MISSION, KS 66206	AN	O'HEARNE, JOHN J 4706 BROAOWAY KANSAS CITY, MO 64112	GS	PERLL, RITA D 600 E 22ND STREET KANSAS CITY, MO 64108	CHP
MULES, JANET E NE JACKSON CT. MENTAL P. O. BOX 748 INDEPENDENCE, MO 64050	P	O'KELL, RICHARD T ST LUKES HOSP DEPT PATH 44TH & WORNALL RO KANSAS CITY, MO 64111	P	PETERSEN, EUGENE G 108 HACKBERRY LEE'S SUMMIT, MO 64063	R
MULLEN, CHRISTOPHER J 6563 WEST FOXRIOGE APT. 2055 SHAWNEE MISSION, KS 66202	IM	O'MALLEY, JAMES F 6700 TROOST KANSAS CITY, MO 64131	PTH	PETERSON, BONITA J 4550 WARWICK BLVO APT 2 KANSAS CITY, MO 64111	PTH
MULLEN, LEO M 4443 PASEO BLVO KANSAS CITY, MO 64110	GP	O'NEIL, JAMES H 275 TAIT TERRACE SE PORT CHARLOTTE, FL 33952	U	PETERSON, CARL M 2701 E 31ST ST KANSAS CITY, MO 64128	GS
MUNDY, WM L 9734 WORNALL RD. KANSAS CITY, MO 64114	IM	OLSON, LLOYD C 24TH AND GILLHAM RD CHILDRENS MERCY HOSP KANSAS CITY, MO 64108	GS	PETERSON, JAY T 4320 WORNALL RO SUITE 212 KANSAS CITY, MO 64111	HEM
MUNYAN, EARL A 17221 E. 23RO SUITE 107 INDEPENDENCE, MO 64057	IM	ORGAN, ALAN E 601 E. 63RO ST. SUITE 311 KANSAS CITY, MO 64110	PO	PETERSON, WALTER R 2701 E 31ST ST KANSAS CITY, MO 64128	GS
MURMANN, OON 111 W. 67TH ST. KANSAS CITY, MO 64113	IM	OSBORNE, JERE O 1010 OZARK NATL. LIFE BLDG. 906 GRANO KANSAS CITY, MO 64106	PO	PETRY, EZRA L 13740 W 90TH PL APT 1 LENEXA, KS 66215	GP
MURPHY, EVERETT M III 545 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	PUD	OST, MARK O 6550 B TROOST KANSAS CITY, MO 64131	OM	PFEFFER-HURWITZ, JUOITH CHILDRENS MERCY HOSPITA 24TH ANO GILLHAM RD KANSAS CITY, MO 64108	CHP
MURPHY, JAMES J C/O SITES 7829 HEOGES KANSAS CITY, MO 64138	P	OTRAKJI, JEAN 1734 E 63RO ST. KANSAS CITY, MO 64110	PTH	PHILLIPS, THOMAS P 610 MEDICAL PLAZA 4320 WORNALL RD. KANSAS CITY, MO 64111	ORS
MURPHY, ROBT J 6428 HIGH DR. SHAWNEE MISSION, KS 66208	O	OVERESCH, HARRY B 6400 PROSPECT AVE KANSAS CITY, MO 64132	NEP	PICKARO, NICHOLAS S 6210 HIGH OR SHAWNEE MISSION, KS 66208	ORS
MURRAY, W L 16 WYCKLOW SHAWNEE MISSION, KS 66207	OPH		ORS	PICKERING, LEE I 1515 W TRUMAN ROAO INDEPENDENCE, MO 64050	IM
MUTCHNICK, NORMAN 6724 TROOST SUITE 910 KANSAS CITY, MO 64131	GS			PIEBENGA, LARRY W 4400 BROADWAY KANSAS CITY, MO 64111	OPH

PIEPERGERDES, LARRY G 4240 BLUE RIDGE BLVD KANSAS CITY, MO 64133	DPH	RANNIE, PAUL R 709 S FULLER ST INDEPENDENCE, MO 64050	AN	ROBERTS, LAURETTA 9150 E. 41ST TERR. KANSAS CITY, MO 64133	OBG
PINGLETON, SUSAN K UMKC SCHOOL OF MEDICINE 2411 HOLMES KANSAS CITY, MO 64108	IM	RATNAM, DASARI V 11962 PENNSYLVANIA KANSAS CITY, MO 64145	P	ROBINETT, WADE V 6700 TROOST STE 616 KANSAS CITY, MO 64131	OTO
PINKERTON, JOSEPH A JR 308 MEDICAL PLAZA 4320 WORNALL RD. KANSAS CITY, MO 64111	TS	RAU, JEROLD 315 NICHOLS RD SUITE 235 KANSAS CITY, MO 64112	D	ROBINSDN, ARTHUR W 4320 WORNALL RD KANSAS CITY, MO 64111	IM
PINSKER, OSCAR T HIGHLANDS PRDF TOWER 6724 TROOST KANSAS CITY, MO 64131	OTO	RAUKTIS, ROBERT F DEPT OF RADIOLOGY ST LUKE'S HOSP KANSAS CITY, MO 64111	R	ROBINSON, ERNEST K 1015 W 58TH TERR KANSAS CITY, MO 64113	GS
PIPER, DONALD K 1010 CARONDELET DR. #426 KANSAS CITY, MO 64114	ORS	RAVIS, MARK S 616 E 63RD ST KANSAS CITY, MO 64110	FP	ROBINSON, WILLIAM A 2301 HOLMES ST. TRUMAN MEDICAL CENTER KANSAS CITY, MO 64108	EM
PIPKIN, GARRETT R R #2 CLINTON, MO 64735	ORS	RECTOR, JOE L 710 MEDICAL PLASA 4320 WORNALL RD. KANSAS CITY, MO 64111	TR	ROBINSON, WM J 9931 LEE CIRCLE LEAWOOD, KS 66206	P
PITIYANUVATH, TASANAPORN 825 EUCLID KANSAS CITY, MO 64124	PD	REDDIN, JACK L 17221 E 23RD ST STE 209 INDEPENDENCE, MO 64057	IM	RODGERS, GEO H 232 RESEARCH MED OFF BL 6400 PROSPECT KANSAS CITY, MO 64132	U
PLACE, KENNETH C 130 PENN PARK 2928 MAIN KANSAS CITY, MO 64108		REDDY, SREEJAYA A 4526 PENNSYLVANIA KANSAS CITY, MO 64111	IM	RODGERS, SAMU U 2701 E 31ST ST KANSAS CITY, MO 64128	OBG
POLITI, GREGORY B 3621 WYNCOTE LAVE SHAWNEE MISSION, KS 66205	AN	REED, WM A 4320 WORNALL RD KANSAS CITY, MO 64111	TS	ROFALL, AMIN A 9206 ENGLAND SHAWNEE MISSION, KS 66212	AN
POLLAK, ERICH W MENORAH MEDICAL CENTER 4949 ROCKHILL RD KANSAS CITY, MO 64110	GS	REINHARDT, G R 228 RESEARCH MED OFF BL 6400 PROSPECT KANSAS CITY, MO 64132	GS	ROGERS, ROBT L 6724 TROOST AVE STE 200 KANSAS CITY, MO 64131	OTO
POLLOCK, LEO H 6601 WENONGA TERRACE SHAWNEE MISSION, KS 66208	GS	REISS, JEANNE E P O BOX 7252 KANSAS CITY, MO 64113	N	*ROMITO, ANTHONY J 5529 TROOST KANSAS CITY, MO 64110	GP
POONAWALA, HUSENI E 4400 BRADWAY SUITE 202 KANSAS CITY, MO 64111	CHP	REISTER, DOROTHY D 5201 W 84TH SHAWNEE MISSION, KS 66207	PD	ROPE, DOUGLAS M 373 W. 101ST TERR. KANSAS CITY, MO 64114	IM
PORTER, LOUIS 12 DOCTORS BLDG. EAST 751 E. 63RD ST. KANSAS CITY, MO 64110	AN	REISTER, PHILIP D 701 E 63RD STE 211 KANSAS CITY, MO 64110	GS	ROSENBERG, ISAC 1010 CARONDELET DR. KANSAS CITY, MO 64114	PD
PORTER, MICHAEL J 6925 BELINDER SHAWNEE MISSION, KA 66208	AN	REISZ, GEORGE R 3118 EATON KANSAS CITY, KS 66103	IM	ROSS, ROBERT M 373 W 101ST TERR KANSAS CITY, MO 64114	IM
PORTER, WALTER N WESTERN MO. MENTAL HEALTH CT 600 EAST 22ND ST. KANSAS CITY, MO 64108	P	REMKUS, JAMES E 6724 TROOST KANSAS CITY, MO 64131	IM	ROTH, ALFRED D 600 ROCKHILL MED. BLDG. 6700 TROOST KANSAS CITY, MO 64131	AN
POSTMA, GEORGE S 9150 EAST 41ST TERRACE KANSAS CITY, MO 64133	IM	RENGACHARY, DHANALAKSHMI 210 SPRUCE LEE'S SUMMIT, MO 64063	OBG	ROZEN, JAY I 6400 PROSPECT KANSAS CITY, MO 64132	R
POTTS, DONALD A 1515 W TRUMAN RD NO 504 INDEPENDENCE, MO 64050	FP	REYNOLDS, CLARENCE C 1734 E 63RD ST SUITE 605 KANSAS CITY, MO 64110	IM	RUBIN, HARVEY P 701 E 63RD ST STE 308 KANSAS CITY, MO 64110	CD
POWELL, ALAN E 17221 E 23RD ST INDEPENDENCE, MO 64057	PD	REYNOLDS, JAMES D 4320 WORNALL RD KANSAS CITY, MO 64111	GE	RUBINITZ, LEON H 751 E 63RD STE 12 KANSAS CITY, MO 64110	AN
POWELL, NELSON E ST LUKES HOSP PATH DEPT 44TH & WORNALL RD KANSAS CITY, MO 64111	PTH	RHODES, ANDREW J SUITE 503 1515 W TRUMAN RD INDEPENDENCE, MO 64055	NS	RUES, LAWRENCE A GOPPER FAMILY CARE CENT 6601 ROCKHILL RD KANSAS CITY, MO 64131	FP
PRATT, CRAIG T 305 COUNTRY LANE LEE'S SUMMIT, MO 64063	IM	RICCI, WALTER F 6724 TROOST KANSAS CITY, MO 64131	P	RUFE, JOHN R 102 BROADWAY MED. BLDG. 4400 BROADWAY KANSAS CITY, MO 64111	OPH
PRINTZ, JOS H 601 E 63RD ST KANSAS CITY, MO 64110	GS	RICE, BERNARD F 8901 WEST 74TH ST. SUITE 125 SHAWNEE MISSION, KS 66204	R	RUSSELL, JAMES L 330 PENN PARK BLDG 2929 BALTIMORE KANSAS CITY, MO 64108	TS
PROSTIC, EDWARD J 6724 TROOST SUITE 800 KANSAS CITY, MO 64131	ORS	RICHARDSON, MARION W 2526 PROSPECT KANSAS CITY, MO 64127	OBG	RUSSELL, ROBT K 8933 ROSE LANE KANSAS CITY, MO 64133	FP
PRYOR, HAROLD J RESEARCH HOSPITAL MEYER AND PROSPECT KANSAS CITY, MO 64132	PM	RICHERT, ROBT C 504 W 96TH ST KANSAS CITY, MO 64114	PTH	RUTHERFORD, BARRY D 4320 WORNALL RD 410 MEDICAL PLAZA KANSAS CITY, MO 64111	IM
PUCCI, GREGORY L 1010 CARONDELET DR SUITE 101 KANSAS CITY, MO 64114	NS	RIEKHOF, PAUL L 10550 QUIVIRA RD OVERLAND PARK, KS 66215	OBG	RYAN, MICHAEL E 210 FOX HILL MED. BLDG. 4601 WEST 109TH ST SHAWNEE MISSION, KS 66211	N
PUGH, RICHARD G 1612 W TRUMAN RD INDEPENDENCE, MO 64050	PD	RILEY, J P PARTHENON, AR 72666	R	SABATES, FELIX N 110 ROCKHILL MED BLDG 6700 TROOST KANSAS CITY, MO 64131	OPH
PURTELL, ALLISON E 3736 LOCUST KANSAS CITY, MO 64109	IM	RILLER, LOWELL E 1600 PROFESSIONAL BLDG 1103 GRAND AVE KANSAS CITY, MO 64106	ORS	SAFERSTEIN, A L 751 E 63RD ST KANSAS CITY, MO 64110	AN
QUER, ERICH A 6400 PROSPECT AVE KANSAS CITY, MO 64132	GS	RIPPEY, JOHN H WORNALL RD AT 44TH ST KANSAS CITY, MO 64111	PTH	SAFLEY, THOS J 17221 E 23RD ST INDEPENDENCE, MO 64057	GS
QUIASON, ARTURO G SUITE 109 17221 E. 23RD ST. INDEPENDENCE, MO 64057	P	RITTER, WILLIAM S ST. MARY'S HOSP. 101 MEMORIAL DR. KANSAS CITY, MO 64108	CD	SALADINO, ANTHONY 2009 W 67TH ST SHAWNEE MISSION, KS 66208	GP
RADER, ADA E 13414 LOCUST ST KANSAS CITY, MO 64145	GP	RIVERA, MICHELE K LAKESIDE HOSPITAL 8701 TROOST KANSAS CITY, MO 64131	PTH	SALDANA, DAHLIA 9103 E 40TH HWY INDEPENDENCE, MO 64055	IM
RAICH, ROBT A 4320 WORNALL RD RM 440 KANSAS CITY, MO 64111	IM	ROBB, CHRISTINE A 13013 FULLER AVE. GRANDVIEW, MO 64030	FP	SAMPAT, PRAVIN 16517 W. 126TH ST. OLATHE, KS 66061	IM
RAMEY, EHRET O 4320 WORNALL AVE KANSAS CITY, MO 64111	OBG	ROBERTS, FRED F DEPT OF RADIOLOGY ST JOSEPH HOSP KANSAS CITY, MO 64114	PDR	SAMUELSON, EDWARD A 706 W 112TH ST KANSAS CITY, MO 64114	FP
RAMOS, AMERICO G 348 ROCKHILL MED BLDG 6700 TROOST KANSAS CITY, MO 64131	TS	ROBERTS, GROSVENOR G 777 N BLUE PKWY LEE'S SUMMIT, MO 64063	OM	SANDERS, DONALD C 411 NICHOLS RD KANSAS CITY, MO 64112	P
		ROBERTS, HAROLD M 216 W 99TH TERR KANSAS CITY, MO 64114	IM	SANDERS, HARMON U 115 HUMPHREY ST GREENWOOD, MS 38930	OPH

COMPONENT SOCIETY ROSTER

SANDERS, WM F 411 NICHOLS RD KANSAS CITY, MO 64112	IM	SHEAHON, JOHN A 6700 RAYTOWN RD RAYTOWN, MO 64133	OBG	SMITH, THOMAS H OEPT OF RADIOLOGY UNIV CHARLOTTESVILLE, VA 22901	R
SANOOW, THEODORE L 4320 WORNALL RD KANSAS CITY, MO 64111	ORS	SHECHTER, NATHAN 800 HIGHLANDS PROF TOWER 6724 TROOST KANSAS CITY, MO 64131	ORS	SMITH, WALLACE B 3611 SOUTH OELAWARE INDEPENDENCE, MO 64055	OPH
SANTORO, CARLOS G 1103 WESTPORT RO KANSAS CITY, MO 64111	GS	SHEEHAN, MICHAEL B 628 GREENWAY TER KANSAS CITY, MO 64113	PD	SNEIO, DAVID S MENORAH MED. CTR. 4949 ROCKHILL KANSAS CITY, MO 64110	IM
SAUER, GORDON C 6400 PROSPECT KANSAS CITY, MO 64132	O	SHELDEN, RUSSELL O 816 W 58TH TERRACE KANSAS CITY, MO 64113	AN	SNIOER, WILBUR R TRUMAN MEDICAL CTR 2301 HOLMES KANSAS CITY, MO 64108	GS
SCARBOROUGH, BETTY F 4223 WEST 69TH TERR. SHAWNEE MISSION, KS 66208	IM	SHERMAN, NEAL J 373 W. 101ST TERRACE KANSAS CITY, MO 64114	IM	SOPER, MICHAEL R 373 W 101ST TERR KANSAS CITY, MO 64114	IM
SCARBOROUGH, MARK R 4223 WEST 69TH TERR. SHAWNEE MISSION, KS 66208	IM	SHIFRIN, ALEXANDER 6700 TROOST AVE KANSAS CITY, MO 64131	IM	SOPER, STEVEN J 1515 W TRUMAN RD #408 INDEPENDENCE, MO 64050	P
SCHAEFFER, WM C P.O. BOX 10432 KANSAS CITY, MO 64111	CRS	SHOCKLEY, CLARENCE J 615 W 3RD ST LEE'S SUMMIT, MO 64063	OBG	SPAFFORD, ALLEN L 5551 BELINOR RD SHAWNEE MISSION, KS 66205	IM
SCHARF, DANIEL 4949 ROCKHILL RD MENORAH MEDICAL CTR KANSAS CITY, MO 64110	IM	SHUEY, HERBERT H 3 E GREGORY ST KANSAS CITY, MO 64114	GP	SPALDING, WILBER B 2928 MAIN ST KANSAS CITY, MO 64108	OPH
SCHIFFMACH, JACK E 4517 W 65TH ST PRAIRIE VILLAGE, KS 66208	R	SICAT, LUZVIMINO F VETERANS ADMINISTRATION HOSP 4801 LINWOOD BLVD. KANSAS CITY, MO 64128	DR	SPENCER, DONALD M 4240 BLUE RIDGE BLVD KANSAS CITY, MO 64133	ORS
SCHILLIE, GENE A 6400 PROSPECT ST KANSAS CITY, MO 64132	OBG	SIEGEL, CARL O P. O. BOX 1358 C/O ST. FRANCIS HOSP. WICHITA, KS 67201	GP	SPIES, BARBARA J P. O. BOX 338 LOUISBURG, KS 66053	GP
SCHLOZMAN, DAN L 6724 TROOST AVE STE 400 KANSAS CITY, MO 64131	PUD	SIEGEL, CHARLES 4936 HOLLY KANSAS CITY, MO 64112	PO	SPURNEY, JOE E 11201 COLORADO KANSAS CITY, MO 64137	FP
SCHOLMAN, ARNOLO 400 ROCKHILL MED. BLDG. 6700 TROOST KANSAS CITY, MO 64131	NS	SIMMONS, DONALD O 4301 MAIN ST STE 14 KANSAS CITY, MO 64111	P	SPURNY, OTTO M 6400 CHERRY KANSAS CITY, MO 64131	IM
SCHOTTMAN, GERHARD W 710 MEDICAL PLAZA 4320 WORNALL RD. KANSAS CITY, MO 64111	R	SIMMONS, JOHN L 6400 PROSPECT KANSAS CITY, MO 64132	U	STAAB, GERALD E 6700 TROOST KANSAS CITY, MO 64131	R
SCHUMAN, NORVIN D MEYER BLVD AT PROSPECT KANSAS CITY, MO 64132	PTH	SIMON, SANFORD 6724 TROOST STE 410 KANSAS CITY, MO 64131	GS	STACEY, WALLACE R 2116 S STERLING INDEPENDENCE, MO 64052	OBG
SCHUTZ, CARL H 841 SAN PABLO OR SAN MARCOS, CA 92069	GS	SINCLAIR, RICHARD H 10550 QUIVIRA RD OVERLAND PARK, KS 66215	OBG	STAGGS, WM A 2929 BALTIMORE AVE STE KANSAS CITY, MO 64108	U
SCHUTZ, RICHARD B BOX 343 LIBERAL, KS 67901	OBG	SINGLETON, CHARLES M 4320 WORNALL RD STE 624 KANSAS CITY, MO 64111	IM	STANFORD, CAROL A 4936 WALNUT KANSAS CITY, MO 64112	IM
SCHWARTZ, HOWARD I TRUMAN MED. CTR. 2301 HOLMES KANSAS CITY, MO 64108	OBG	SINGLETON, JOHN M 4400 BROADWAY SUITE 310 KANSAS CITY, MO 64111	IM	STANLEY, CHARLES G RICHARD CABOT CLINIC 1810 SUMMIT ST. KANSAS CITY, MO 64108	OM
SCHWEGLER, ROBERT G 10235 CATALINA SHAWNEE MISSION, KS 66207	OR	SINNETT, MARK F LITTLE BLUE & LEE SUMMIT RD. TRUMAN MEDICAL CENTER E KANSAS CITY, MO 64139	IM	STANLEY, JOHN H 4400 BROADWAY KANSAS CITY, MO 64111	CHP
SCOTT, JOHN E 117 TEAKWOOD LEE'S SUMMIT, MO 64063	OR	SIRRIDGE, MARJORIE J 2411 HOLMES KANSAS CITY, MO 64108	IM	STARKS, GREGORY C 373 WEST 101ST TERR. KANSAS CITY, MO 64114	OBG
SEELY, CLARK W 3000 W 68TH ST SHAWNEE MISSION, KS 66208	PO	SIRRIORGE, WM T TRUMAN MEDICAL CTR 2301 HOLMES KANSAS CITY, MO 64108	IM	STASS-ISERN, MERRILL L 1405 W. 50TH TERR. KANSAS CITY, MO 64112	EM
SEIDEN, GERALD D 6724 TROOST KANSAS CITY, MO 64131	OTO	SKILLMAN, ROBT K 4320 WORNALL RD KANSAS CITY, MO 64111	IM	STATLAND, HARRY STATLAND CLINIC 6724 TROOST-SUITE 71 KANSAS CITY, MO 64131	IM
SEITZ, ELSON F 1509 W TRUMAN RD CLINIC INDEPENDENCE, MO 64050	PTH	SKINNER, JOHN T 824 WESTOVER RD. KANSAS CITY, MO 64113	GP	STATLAND, MORRIS STATLAND CLINIC 6724 TROOST-SUITE 71 KANSAS CITY, MO 64131	IM
SELLS, KENNETH J 2929 BALTIMORE STE 310 KANSAS CITY, MO 64108	FP	SLANKARO, J E 4320 WORNALL RD KANSAS CITY, MO 64111	OBG	STEEL, MAXWELL W P O BOX 1159 BENOIX CORP KC DIV KANSAS CITY, MO 64141	IM
SESHUMURTY, PONNURU CHILDREN'S MERCY HOSP. 24TH & GILLHAM RD. KANSAS CITY, MO 64108	PO	SLANTZ, EDWIN L 4320 WORNALL RD KANSAS CITY, MO 64111	IM	STEFFEN, LAWRENCE F 9606 NIEMAN PLACE OVERLAND PARK, KS 66214	CO
SESHUMURTY, VIMALA 4900 SPOPE PARKWAY KANSAS CITY, MO 64130	PO	SLANTZ, WM A 4320 WORNALL RD KANSAS CITY, MO 64111	IM	STELLE, CHAS W 9540 MISSION RD APT. 31 SHAWNEE MISSION, KS 66206	OM
SHAH, DIPAK C TRUMAN MEDICAL CENTER 2301 HOLMES KANSAS CITY, MO 64108	R	SLICKMAN, ROBT A 2929 BALTIMORE KANSAS CITY, MO 64108	OBG	STELMACH, WALTER J 5252 SUNSET DR KANSAS CITY, MO 64112	FP
SHALET, MALCOLM F 6724 TROOST AVE STE 500 KANSAS CITY, MO 64131	IM	SMITH, ARTHUR B 6400 PROSPECT KANSAS CITY, MO 64132	R	STEPHENS, JACK D 751 E 63RD ST KANSAS CITY, MO 64110	AN
SHALLEY, JACK E 4240 BLUE RIDGE BLVD ST KANSAS CITY, MO 64133	P	SMITH, ELBERT E 4400 BROADWAY KANSAS CITY, MO 64111	PO	STERN, THOS L 1740 W 92ND ST KANSAS CITY, MO 64114	FP
*SHANK, NEIL A SUITE 301 601 EAST 63RD ST. KANSAS CITY, MO 64110	IM	SMITH, HUBERT E 5104 E 24TH ST KANSAS CITY, MO 64127	IM	STEWART, HARRY A 4706 BROADWAY STE 105 KANSAS CITY, MO 64112	P
SHANKER, STUART G 373 W 101ST TERRACE KANSAS CITY, MO 64114	PO	SMITH, IRA T 6400 PROSPECT ST KANSAS CITY, MO 64132	U	STITT, RONALD W JR 300 HIGHLANDS PROF. TOWER 6724 TROOST KANSAS CITY, MO 64131	ORS
SHAPIRO, LAZARE M P O BOX 1441 SUN CITY, AZ 85351	IM	SMITH, JOHN C TRUMAN MEDICAL CTR 2301 HOLMES KANSAS CITY, MO 64108	PTH	STOCKTON, RAYMONO W 4320 WORNALL RD KANSAS CITY, MO 64111	U
SHARMA, JANARONAN N 208 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	IM	SMITH, KATHERINE W CHILDREN'S MERCY HOSPITAL 24TH AND GILLHAM RD. KANSAS CITY, MO 64108	PD	STOCKWELL, ARTHUR L DIVISION OF UROLOGY TRUMAN MEDICAL CTR KANSAS CITY, MO 64108	U
SHARMA, VIDYA CHILDREN'S MERCY HOSP 24TH & GILLHAM RD KANSAS CITY, MO 64108	IM	SMITH, OTHELLO D 6550-C TROOST KANSAS CITY, MO 64131	PTH	STOUT, CARL N 701 BLUE RIDGE TOWER 4240 BLUE RIDGE KANSAS CITY, MO 64133	OPH
		SMITH, REID C 3118 EATON KANSAS CITY, KS 66103	IM		

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STRATEMEIER, EDWARD H 31ST AND WYANDOTTE KANSAS CITY, MO 64108	R	THRONE, BENNIE J 6724 TROOST STE 407 KANSAS CITY, MO 64131	TR	VERGARA, GERARDO G 31ST & WYANDOTTE KANSAS CITY, MO 64108	PTH
STRAUSS, CARL F 8300 TROOST AVE KANSAS CITY, MO 64131	IM	THRONE, ELIAS M RESEARCH MEDICAL CENTER KANSAS CITY, MO 64132	PM	*VIALLE, GENE M TRUMAN MEDICAL CENTER 2301 HOLMES KANSAS CITY, MO 64108	AN
STRIBLING, THOS L 2116 STERLING AVE INOPEPENDENCE, MO 64052	OBG	THRONE, ELIAS M RESEARCH MEDICAL CENTER KANSAS CITY, MO 64132	PM	VICTOR, FRANK R 900 HIGHLAND PROF TOWER 6724 TROOST KANSAS CITY, MO 64131	DR
STROMBERG, ERIC D 6400 PROSPECT AVE KANSAS CITY, MO 64132	AN	THUKRAL, REETA RESEARCH MEDICAL CENTER 2316 EAST MEYER BLVD. KANSAS CITY, MO 64132	IM	VIDALS, VICTOR G 1010 CARONDELET-SUITE 1 KANSAS CITY, MO 64114	GS
STYCZYNSKI, R. MARK 10316 E. 42ND ST. KANSAS CITY, MO 64133	IM	TICE, WAYNE K 3626 BLUE JACKET DRIVE LEE'S SUMMIT, MO 64063	DR	VILLANUEVA, ANGELA A ST. JOSEPH HOSP 1000 CARONDELET DR. KANSAS CITY, MO 64114	PTH
SUDDARTH, STERLING S 6501 ENGLEWOOD KANSAS CITY, MO 64133	PO	TILLEMA, DAVID A 6306 MORNINGSIDE DR KANSAS CITY, MO 64113	ORS	VINCENT, JACK C 2003 W. 67TH TERRACE SHAWNEE MISSION, KS 66208	IM
SULIT, ARNULFO P 101 MEMORIAL DR KANSAS CITY, MO 64108	IM	TIOJANCO, MILAGROS E 11807 WASHINGTON KANSAS CITY, MO 64114	AN	VIRIL, LEONARDO C 4706 BROADWAY KANSAS CITY, MO 64112	GE
SULLIVAN, TOM G 6400 PROSPECT AVE. SUITE 240 KANSAS CITY, MO 64132	OBG	TIOJANCO, REYNALDO R 5801 EAST 113TH STREET KANSAS CITY, MO 64134	FP	VOGEL, ARTHUR P 2215 DRURY LANE SHAWNEE MISSION, KS 66208	AN
SUSEELA, DASARI 4900 SPOPE PKWY KANSAS CITY, MO 64130	PD	TITTERINGTON, FRANK W 236 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	IM	VOLK, GEO E 10550 QUIVIRA RD OVERLAND PARK, KS 66215	OBG
SUTTON, RICHARD L 3203 W 83RD TERRACE SHAWNEE MISSION, KS 66206	O	TOUBES, OANIEL B 8300 TROOST ST KANSAS CITY, MO 64131	IM	VON LINTEL, THOMAS ST. LUKE'S HOSP. 44TH AND WORNALL RD. KANSAS CITY, MO 64111	AN
SWARTWOUT, JOSEPH R HOSPITAL PERIMETER PUTNAM GENERAL HOSPITAL EATONTON, GA 31024	OBG	TRIMBLE, DAVID P JR VA HOSPITAL 4801 LINWOOD BLVD. KANSAS CITY, MO 64128	IM	VOSHALL, DAVID L 14600 E. 35TH ST. INDEPENDENCE, MO 64055	IM
SWISHER, ROBT C 416 GATEWAY DRIVE JEFFERSON CITY, MO 65101	R	TRIMBLE, GEO X 101 MEMORIAL DR KANSAS CITY, MO 64108	IM	VOTH, HAROLD W 4320 WORNALL RD KANSAS CITY, MO 64111	IM
SZABADOS, ERNEST D 17221 E 23RD ST INDEPENDENCE, MO 64057	ORS	TROEH, MELVIN R 1515 W TRUMAN RD STE 30 INDEPENDENCE, MO 64050	IM	WADDELL, THOMAS H 710 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	DR
SZYMANSKI, DENNIS C CHIEF DIV OF NEUROSURG TRUMAN MEO CENTER KANSAS CITY, MO 64108	NS	TROWBRIDGE, BARNARD C 415 E 63RD ST KANSAS CITY, MO 64110	OTO	WADE, FREDERICK E PROFESSIONAL BLDG 1103 GRAND AVE KANSAS CITY, MO 64106	OPH
TALBOTT, LAWRENCE B 12012 FAIRWAY SHAWNEE MISSION, KS 66209	PTH	TROWBRIDGE, ELLSWORTH 18435 101ST DR SUN CITY, AZ 85373	P	WAECKERLE, JOSEPH F 800 W 53RD ST. KANSAS CITY, MO 64112	EM
TAMBLYN, CLAIRE L 6801 BELINDER SHAWNEE MISSION, KS 66208	AN	TUOHY, GERALD F 44TH & WORNALL RD KANSAS CITY, MO 64111	AN	WAGNER, PAUL J GREENWILLOW FARM RT 1 GREENWOOD, MO 64034	AN
TAPUZ, JAIME T 600 EAST 8TH ST KANSAS CITY, MO 64106	AN	TURANO, WM L 6700 RAYTOWN RD RAYTOWN, MO 64133	OBG	WAKEFIELD, FRANKLIN H 13065 100TH DR SUN CITY, AZ 85351	GP
TARSON, SOLOMON S 5511 W 85TH ST SHAWNEE MISSION, KS 66207	OS	TURNER, RONALD M 1515 W TRUMAN RD STE 40 INDEPENDENCE, MO 64050	GS	WALDMAN, RICHARD A 24TH & GILLHAM RD KANSAS CITY, MO 64108	PD
TASKER, CHAS B 11083 BURNTWOOD DR SUN CITY, AZ 85351	AN	TUTERA, DOMINIC F 4400 BROADWAY KANSAS CITY, MO 64111	OBG	WALKER, ORVILLE C 1515 W TRUMAN RO INDEPENDENCE, MO 64050	PD
TEGELER, CHARLES H 2933 BALTIMORE APT. 602 KANSAS CITY, MO 64108	IM	TWIN, EDWARD J 2301 HOLMES KANSAS CITY, MO 64108	IM	WALL, HARRY C 751 E 60RD ST STE 250 KANSAS CITY, MO 64110	A
TERRY, THOMAS L TRUMAN MEOICAL CENTER LEE'S SUMMIT KANSAS CITY, MO 64139	CO	TWYMAN, RICHARD A 7919 BRISTOL CT SHAWNEE MISSION, KS 66208	GS	WALL, LEONARDO A 4320 WORNALL RO. SUITE 520 KANSAS CITY, MO 64111	OBG
THALBLUM, HARVEY 6400 PROSPECT STE 216 KANSAS CITY, MO 64132	OR	UNOERWOOD, OICK H 6700 TROOST AVE STE 624 KANSAS CITY, MO 64131	OPH	WALLACE, OARRYL L OEPT. OF MEO. ED., ST. LUKE 44TH AND WORNALL RD KANSAS CITY, MO 64111	OBG
THEEL, OTTO W 4301 MAIN ST KANSAS CITY, MO 64111	PTH	UPSHER, ALBERT E BOX 2778 KANSAS CITY, MO 64142	PTH	WALTERBACH, JAMES 217 N.W. 63RD ST. APT. 203 KANSAS CITY, MO 64118	IM
THIBEAULT, DONALD W CHILDREN'S MERCY HOSP. 24TH & GILLHAM RO. KANSAS CITY, MO 64108	PD	VALEN, PETER A 4119 ROANOKE RO. APT 24 KANSAS CITY, MO 64111	IM	*WASSERMAN, GARY S CHILORENS MERCY HOSP OE 24TH & GILLHAM RD KANSAS CITY, MO 64108	PD
THIELE, GEO H 121 W 48TH ST APT 705 KANSAS CITY, MO 64112	CRS	VALENTINE, JOHN O MENORAH MEDICAL CTR. 4949 ROCKHILL RD. KANSAS CITY, MO 64110	EM	WATERS, JEFFREY A 206 BROADWAY MEDICAL 8L 4400 BROADWAY KANSAS CITY, MO 64111	PD
THOMAS, ALEXIS G 3229 EAST 28TH ST. KANSAS CITY, MO 64128	IM	VALINS, EUGENE 601 E 63RD ST SUITE 309 KANSAS CITY, MO 64110	P	WATHANA-CHAROEN, SUCHINT 4320 WORNALL RD KANSAS CITY, MO 64111	TS
THOMAS, CHRISTOPHER Y 308 MEOICAL PL. 4320 WORNALL RD. KANSAS CITY, MO 64111	GS	VAN BIBER, JAMES T 1612 W TRUMAN RD INDEPENOEENCE, MO 64050	PO	WAXMAN, HERBERT J 8300 TROOST AVE THE MEO KANSAS CITY, MO 64131	IM
*THOMAS, NORVIN E 1834 N. E. VIVION RO. KANSAS CITY, MO 64118	IM	VAN BUSKIRK, TERRANCE E 5246 ST JOHN AVE KANSAS CITY, MO 64123	GP	WAXMAN, JANE Z 5800 MISSION DR SHAWNEE MISSION, KS 66208	PD
*THOMAS, NORVIN E 6800 N. ASKEW KANSAS CITY, MO 64119	IM	VAN BUSKIRK, WM C 6700 TROOST SUITE 308 KANSAS CITY, MO 64131	GS	WEAVER, MICHAEL L 4505 HEADWOOD #1 KANSAS CITY, MO 64111	IM
*THOMAS-RICHAROS, JOSE R SUITE 100 6025 PROSPECT AVE. KANSAS CITY, MO 64130	ORS	VAUGHN, JAMES W 411 NICHOLS RD-STE 208 KANSAS CITY, MO 64112	P	WEBB, HARRY E 4400 BROADWAY KANSAS CITY, MO 64111	PS
THOMPSON, CHAS L 4320 WORNALL RD SUITE 5 KANSAS CITY, MO 64111	IM	VAUGHTERS, FRANK M 2727 MAIN KANSAS CITY, MO 64108	PO	WEIFORD, EDWARD C 4320 WORNALL RD KANSAS CITY, MO 64111	NS
THOMPSON, DAVID E 12 DOCTORS BLDG. EAST 751 EAST 63RD ST. KANSAS CITY, MO 64110	AN	VENEGONI, ROBT L 600 ROCKHILL MED. BLDG. 6700 TROOST KANSAS CITY, MO 64131	AN	WEINSTEIN, CHAS L 4440 BROADWAY KANSAS CITY, MO 64111	N
THOMPSON, MICHAEL F 8622 W. 55TH TERRACE MERRIAM, KS 66202	IM	VERA, ENRIQUE 6724 TROOST KANSAS CITY, MO 64131	P		
		VERDUGHT, AMMON L 15022 EAST 33RD ST. INDEPENDENCE, MO 64055	IM		

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COMPONENT SOCIETY ROSTER

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WEIR, ROBT K 610 BLUE RIDGE TOWER 4240 BLUE RIDGE BLVD KANSAS CITY, MO 64133	OPH	WILSON, CLIFFORD C 1129 LEISURE LANE #8 WALNUT CREEK, CA 94595	CRS	ZIA, MUHAMMAD S 769 TUDOR RD. LEE'S SUMMIT, MO 64063	P
WEISMAN, EDWARD B P. O. BOX 983 KANSAS CITY, MO 64141	P	WILSON, ROGER W 500 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	ORS	ZIEMIANSKI, MATTHEW C 110 ROCKHILL MEDICAL BL 6700 TROOST KANSAS CITY, MO 64131	OPH
WELLS, DONALD E MEYER BLVD AT PROSPECT KANSAS CITY, MO 64132	IM	WINER, HERBERT J 6724 TROOST STE 210 KANSAS CITY, MO 64131	OBG	ZOLLER, DAVID D 101 MEMORIAL DR KANSAS CITY, MO 64108	PTH
WELLS, JAMES A 1008 VALENTINE RD KANSAS CITY, MO 64111	AN	WINER, NATHANIEL 2301 HOLMES TRUMAN MEDICAL CENTE KANSAS CITY, MO 64108	IM	ZUKAITIS, MARK G 142 RESEARCH MED. OFF. BLDG. 6400 PROSPECT KANSAS CITY, MO 64132	AN
WELLS, JOHN H 6025 PROSPECT KANSAS CITY, MO 64130	IM	WINKELMAN, ESTHER B 6400 PROSPECT SUITE 224 KANSAS CITY, MO 64132	GP	ZWERENZ, BRUNO H 1734 EAST 63RD STREET KANSAS CITY, MO 64110	P
WELLS, STANLEY D 216 RES'CH MED OFF BLD 6400 PROSPECT KANSAS CITY, MO 64132	DR	WINSTON, BERNARD H 601 E 63RD ST KANSAS CITY, MO 64110	D		
WENNER, HERBERT A CHILDRENS MERCY HOSP 24TH & GILLHAM RD KANSAS CITY, MO 64108	PD	WISE, GEO W 24TH & GILLHAM RD KANSAS CITY, MO 64108	PD	102—JASPER	
WEST, HAROLD D 1515 W TRUMAN RD INDEPENDENCE, MO 64050	ORS	WISE, MORRIS F 6724 TROOST SUITE KANSAS CITY, MO 64131	U	ADAMS, ROBT B 3103 MC CLELLAND JOPLIN, MO 64801	IM
WHEELER, CHAS B 4320 WORNALL RD KANSAS CITY, MO 64111	PH	WOEHL, JOS J #4 LEMANS CT. SHAWNEE MISSION, KS 66208	N	AL-SHATHIR, SAAD M BRADY BUILDING ST JOHNS MED CTR. JOPLIN, MO 64801	PM
WHITAKER, JAMES H 6400 PROSPECT KANSAS CITY, MO 64132	ORS	WOLDESMIT, ASSEFA 1100 COUNTY LINE RD. BLOG 1, APT. 20 KANSAS CITY, KS 66103	IM	ALLEN, DAVID O 3105 MC CLELLAND BLVD JOPLIN, MO 64801	U
WHITE, CHAS H 6518 OVERHILL RD SHAWNEE MISSION, KS 66208	AN	WOLF, JACK W 6724 TROOST AVE STE 500 KANSAS CITY, MO 64131	IM	ARNOLD, JAMES T MEDICAL ARTS BLDG JOPLIN, MO 64801	DR
WHITE, JAMES S 751 E 63RD ST KANSAS CITY, MO 64110	U	WOOD, DAVID G 340 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	DR	BENTLAGE, CHAS H 1513 W 32ND ST-HILLSIDE JOPLIN, MO 64801	GS
WHITE, STOUGHTON F 4320 WORNALL RD KANSAS CITY, MO 64111	U	WOODS, HAROLO V 917 MC GEE KANSAS CITY, MO 64106	GP	BHEND, DAVID P 3115 MC CLELLAND BLVD JOPLIN, MO 64801	P
WHITE, WM E 6400 PROSPECT KANSAS CITY, MO 64132	NM	WOODS, SAM L O 4320 WORNALL RO RM 216 KANSAS CITY, MO 64111	GS	BIRD, WM J 1031 MCINTOSH CIRCLE DR. JOPLIN, MO 64801	U
WHITMAN, DOYLE C 6836 CHEROKEE LANE SHAWNEE MISSION, KS 66208	OM	WOODS, WALTON C TWA OVERHAUL BASE P O BOX 20126 KANSAS CITY, MO 64195	OM	BIRSNER, FRANK H 2401 JACKSON ST JOPLIN, MO 64801	GP
WHITMORE, J S 2929 BALTIMORE KANSAS CITY, MO 64108	R	WOODWARD, WM W 4240 BLUE RIDGE BLVD KANSAS CITY, MO 64133	IM	BLADOW, TERENCE C 3107 MC CLELLAND BLVD JOPLIN, MO 64801	PO
WHITTAKER, CHAS K 4440 BROADWAY KANSAS CITY, MO 64111	NS	WORTMANN, ROBT F 2819 W 66TH TERR SHAWNEE MISSION, KS 66208	OBG	BOPP, JON R 3115 MC CLELLAND BLVD JOPLIN, MO 64801	OBG
WIEN, IRVING A 9536 ROSEWOOD LN SHAWNEE MISSION, KS 66207	GS	WRIGHT, R P 6700 TROOST ST-STE 40 KANSAS CITY, MO 64131	IM	BORELLA, DAN J 3115 MCCLELLANO BLVO. JOPLIN, MO 64801	OBG
WILBER, ROBT D 4320 WORNALL RD STE 208 KANSAS CITY, MO 64111	GE	WU, SHUH-MIN 6724 TROOST AVE STE 500 KANSAS CITY, MO 64131	OBG	BRANON, FREDERICK M 1102 W 32ND ST JOPLIN, MO 64801	R
WILHELM, WARREN F 6400 PROSPECT ST SUITE KANSAS CITY, MO 64132	IM	WU, WM Q 6700 TROOST KANSAS CITY, MO 64131	IM	BROWNING, RONALO A 3402 MCINTOSH CIRCLE DR. JOPLIN, MO 64801	IM
WILKINS, MICHAEL S 825 EUCLID KANSAS CITY, MO 64124	IM	WURSTER, JERRY B 4320 WORNALL RD KANSAS CITY, MO 64111	NS	BURCH, JOHN E P O BOX 2247 JOPLIN, MO 64801	OBG
WILKINSON, CHAS B 2200 MC COY KANSAS CITY, MO 64108	P	WURSTER, W J 1010 CARONDELET OR. SUITE 224 KANSAS CITY, MO 64114	OPH	BURLEIGH, BRUCE W 2700 MC CLELLAND BLVD JOPLIN, MO 64801	ORS
WILKINSON, EVERETT A 228 RESEARCH MEO OFF BL 6400 PROSPECT KANSAS CITY, MO 64132	GS	YOON, JAE W OEPT. OF RAD. 2301 HOLMES KANSAS CITY, MO 64108	OTO	CARNES, VICTOR M P O BOX B MAIN OFFICE JOPLIN, MO 64801	PTH
WILLIAMS, FENTON A 1734 E 63RD ST KANSAS CITY, MO 64110	R	YOUILL, DONALD V 1010 CARONOLET OR. SUITE 220 KANSAS CITY, MO 64114	R	CHASE, NEO B 2700 MC CLELLANO BLVD JOPLIN, MO 64801	ORS
WILLIAMS, FRANK R 4320 WORNALL RD KANSAS CITY, MO 64111	ORS	YOUNG, RONALD A 415 E 63RD ST KANSAS CITY, MO 64110	A	CHELLAPPA, OANUKOOI 2727 MC CLELLANO BLVD JOPLIN, MO 64801	IM
WILLIAMS, GARY O 7211 CONSER SHAWNEE MISSION, KS 66204	IM	YOUNG, JAMES E 4320 WORNALL RD STE 716 KANSAS CITY, MO 64111	N	CHESNEY, GEO W 2604 PICHER ST JOPLIN, MO 64801	AN
WILLIAMS, GEO P 10928 HILCREST RD KANSAS CITY, MO 64134	FP	YOUNG, JESSE W 1401 SOUTHWEST BLVO KANSAS CITY, KS 66103	P	CLARK, FRANK I 3107 MC CLELLANO BLVD JOPLIN, MO 64801	PO
WILLIAMS, JOS C 6400 PROSPECT AVE KANSAS CITY, MO 64132	OBG	YOUNGBLOOD, JAMES P 1010 CARONOLET DR KANSAS CITY, MO 64114	GP	COHLE, RICHARD R 301 E CHESTNUT ST CARTHAGE, MO 64836	IM
WILLIAMS, ROLANO O 1010 CARONOLET DR. SUITE 224 KANSAS CITY, MO 64114	OTO	YU, MARIO K SUITE 117 4706 BROADWAY KANSAS CITY, MO 64112	OBG	CONOE, GARY A 2601 CUNNINGHAM, LOWER LEVEL JOPLIN, MO 64801	FP
WILLIAMS, STARKS J 2701 E 31ST ST KANSAS CITY, MO 64128	PD	ZAHONY, IVAN 8255 W. 172ND TERRACE STILWELL, KS 66085	AN	CRAIG, IRWIN T 2039 GULF OF MEXICO OR LONGBOAT KEY, FL 33548	OBG
WILLIAMS, THOMAS A VA HOSPITAL 4801 LINWOOD BLVD. KANSAS CITY, MO 64128	P	ZAHORSKY, CARROLL L 633 EAST 63RD ST. KANSAS CITY, MO 64110	PS	CRAWFORD, ARCHIE L 607 MAIN ST JOPLIN, MO 64801	GS
WILLIS, RUDOLPH E 1505 CITAOEL DR., APT 52 KANSAS CITY, MO 64110	IM	ZELLER, ORRELL E 328 ST JOSEPH MEO BLDG 1010 CARONOLET OR KANSAS CITY, MO 64114	OBG	CRISPELL, LAWRENCE S 2000 CENTER BLDG-20TH C JOPLIN, MO 64801	OTO
WILLOUGHBY, JAMES W 1125 GRANO AVE KANSAS CITY, MO 64106	A	ZERR, CHARLES H 1100 WEST TRUMAN RD. INDEPENDENCE, MO 64050	IM	OANDRIDGE, WALTER C A 2601 CUNNINGHAM JOPLIN, MO 64801	GS
WILLOUGHBY, JEAN B 1019 W. 69TH TERR. KANSAS CITY, MO 64113	IM			OAVIS, CHAS S 301 MED ARTS BLDG JOPLIN, MO 64801	CO
				OE TAR, BURLEIGH E MEICAL ARTS BLDG. ROOM 208 JOPLIN, MO 64801	GS
				OIXON, HERBERT K 3201 MCINTOSH CIRCLE OR. JOPLIN, MO 64801	OPH

ELISCU, JULIETTE M 3107 MC CLELLANO JOPLIN, MO 64801	PO	PATTERSON, GROVER S 510 S MAIN ST CARTHAGE, MO 64836	FP	BELEN, MARIETTA COUNTY-WIDE PEDIATRICS, INC. 103 NORTH MILL ST. FESTUS, MO 63028	PO
ESTHER, JOHN R FERGUSONS LAB BOX B JOPLIN, MO 64801	PTH	PENCE, FRANCIS W 2727 MC CLELLANO BLVD JOPLIN, MO 64801	FP	BLANK, MICHAEL K 111 EASTON ST OE SOTO, MO 63020	GS
FERGUSON, ROBT M 510 E 32ND JOPLIN, MO 64801	GP	POTTENGER, LOWELL K 107 MEDICAL ARTS BLDG JOPLIN, MO 64801	OR	BONIFACIO, ANORES S 121 MISSISSIPPI CRYSTAL CITY, MO 63019	OBG
FRITSCH, ANOREW J 2525 JACKSON ST JOPLIN, MO 64801	IM	POWELL, ROBT G R.R. 3, BOX 87 GALENA, KS 66739	IM	CARRON, JOSEPH 1606 HOBELMANN ARNOLO, MO 63010	FP
FROGGE, JIMMY D 3105 MC CLELLANO BLVD JOPLIN, MO 64801	U	PRYOR, IRA J 2902 MCCLELLANO BLVD. SUITE 5 JOPLIN, MO 64801	AN	CHARLES, NALLATHAMBI MEDICAL VILLAGE FESTUS, MO 63028	FP
GARDNER, JOS A 2700 MCCLELLANO BLVD. SUITE 109 JOPLIN, MO 64801	OBG	RAY, OAVIO J BOX A WEST PLAINS, MO 65775	U	CHARLES, PADMINI MEDICAL VILLAGE RT #4 FESTUS, MO 63028	GP
GASTON, SAM L 2720 OHIO JOPLIN, MO 64801	R	ROBERTS, HOWARD H 3101 MC CLELLANO JOPLIN, MO 64801	OBG	CONANT, JAMES F 111 EASTON ST OE SOTO, MO 63020	GP
GOFF, JOHN E 2601 CUNNINGHAM JOPLIN, MO 64801	FP	ROYCE, JAMES J 16TH MINER STS SARCOXIE, MO 64862	GP	OATTA, NARENOAR K 130 MAIN ST., FESTUS, MO 63628	OBG
GREBE, T K 3209 MC CLELLANO JOPLIN, MO 64801	OBG	SABAPATHY, SHANMUGASUNOARA MEDICAL ARTS BLDG ROOM JOPLIN, MO 64801	CO	OELLES, VICENTE O MEDICAL VILLAGE CRYSTAL CITY, MO 63019	GS
GRIM, EDWARD M 3105 MC CLELLANO BLVD JOPLIN, MO 64801	U	SANEMAN, PAUL P 2700 MC CLELLANO BLVD JOPLIN, MO 64801	OBG	DONNELL, HAROLO E 700 N MAIN OE SOTO, MO 63020	GP
GRUBB, PAUL H 2509 JACKSON JOPLIN, MO 64801	GP	SCHMIDT, HERBERT J 3702 W 26TH JOPLIN, MO 64801	OBG	DONNELL, ROBT H 112 MISSISSIPPI CRYSTAL CITY, MO 63019	OR
HABERMANN, JAMES H 1324 FAIRMONT JOPLIN, MO 64801	PTH	SCHOEBERL, CLETUS B 305 MEO ARTS BLDG JOPLIN, MO 64801	IM	CONNELL, THOS A P O BOX 592 HILLSBORO, MO 63050	GP
HALL, MARVIN F 3115 MC CLELLANO JOPLIN, MO 64801	R	SCHULTE, GREGORY A 2125 JACKSON AVE JOPLIN, MO 64801	GP	EWAROS, WALDO B 135 W ADAMS KIRKWOOD, MO 63122	OBG
HALLABA, MOHEB A 2329 JACKSON JOPLIN, MO 64801	GS	SCORSE, SIONIE W R R 1-BOX 236 NEOSHO, MO 64850	EM	JUOGE, WALTER T 1004 TAYLOR AVE CRYSTAL CITY, MO 63019	GS
HILTON, PAUL E 1612 MURPHY BLVD JOPLIN, MO 64801	O	SHANAHAN, MARY P P O BOX 2125 JOPLIN, MO 64801	OBG	LEE, JUNG H P O BOX 309 CRYSTAL CITY, MO 63019	CO
HOLTZMAN, SAM L 3001 MARTIN L KING DR A CHICAGO, IL 60616	O	SIMMONS, JESS S 2700 MC CLELLANO BLVD JOPLIN, MO 64801	O	PARK, OUK J 105 WALNUT ST FESTUS, MO 63028	IM
HURST, WILFRED W 3115 MC CLELLANO JOPLIN, MO 64801	ORS	SINGLETON, MARVIN A 114 W 32ND ST JOPLIN, MO 64801	OTO	PARK, KUN H P. O. BOX 667 MEO VILLAGE SUITE 106 FESTUS, MO 63028	OBG
HWANG, YUNG H 121 COLLEGE WEBB CITY, MO 64870	GS	SMITH, ROLAND T 207 MEDICAL ARTS BLDG JOPLIN, MO 64801	GS	REEO, MARTHA A JEFFERSON SQUARE SHOPPI DE SOTO, MO 63020	IM
JEANS, VIRGIL E 660 JACCARD PL JOPLIN, MO 64801	GS	SMITH, W R 211 E CHESTNUT ST CARTHAGE, MO 64836	GS	RUTLEOGE, JOHN F MANNS BLDG FESTUS, MO 63028	GP
KIRKMAN, ROBERT E 3661 S. MIAMI AVE. 310 MERCY PROF BLDG. MIAMI, FL 33133	OTO	STIDMAN, FREDERICK C 3107 MC CLELLANO BLVD JOPLIN, MO 64801	PD	UMALI-SESSOMS, NORA C 6665 OELMAR BLVD. ST. LOUIS, MO 63130	AN
KOEHLER, JOHN W 3103 MC CLELLAND BLVD JOPLIN, MO 64801	IM	STRAUB, DAVIO L 3107 MC CLELLANO JOPLIN, MO 64801	PO	VERZOLA, EUFEMIO G 11 MAIN ST HERCULANEUM, MO 63048	GS
KUHN, JOHN R 321 FRISCO BLDG JOPLIN, MO 64801	GP	TURFBOER, ROBERT 2701 WEST 32ND ST. JOPLIN, MO 64801	P	YOSKIT, HARRY C/O HERMAN GUZOFEKY 90-50 UNION TURNPIKE GLENDALE, NY 11227	O
LONGENECKER, JOE L 2503 JACKSON AVE JOPLIN, MO 64801	FP	TURITTO, LOUIS A 1515 HAZEL AVE. CARTHAGE, MO 64836	GS		
MAC LAUGHLIN, JAMES C 3103 MC CLELLAND BLVD JOPLIN, MO 64801	IM	VINYARO, JACK L 2727 MC CALLANO BLVD JOPLIN, MO 64801	GP		
MAJZIOUB, HISHAM S 2902 MC CLELLANO JOPLIN, MO 64801	NS	WALKER, PAUL W 1022 N SERGEANT JOPLIN, MO 64801	U		
MANALO, GIL B 510 S GARRISON CARTHAGE, MO 64836	GS	WHITTEN, M F 616 W CENTENNIAL ST CARTHAGE, MO 64836	GP		
MANGALAT, NARAYANAN K 25 JACKSON AVE MEDICAL ARTS BLDG JOPLIN, MO 64801	NEP	WIEMAN, HARRY K 206 MEO ARTS BLDG JOPLIN, MO 64801	IM		
MARTIN, CLARENCE A 1513 W 32ND JOPLIN, MO 64801	GS	WILCOX, RUTH E 614 JOPLIN ST JOPLIN, MO 64801	PO		
MC GONIGLE, JAMES P 2730 CUNNINGHAM JOPLIN, MO 64801	OPH	WILLCOXON, ROBT L 2601 CUNNINGHAM JOPLIN, MO 64801	GS		
MC GONIGLE, MICHAEL M 2620 CUNNINGHAM JOPLIN, MO 64801	GP	WILSON, ALICE H RTE 1 BOX 163 NEOSHO, MO 64850	FP		
MC PIKE, LLOYD H 2217 BROWNELL ST JOPLIN, MO 64801	GS	WOOD, GEO H 1515 HAZEL AVE CARTHAGE, MO 64836	FP		
MEREIOITH, WILLIAM R JR. 2817 MCCLELLANO JOPLIN, MO 64801	OPH	YOUNG, CALVIN C 3115 MC CLELLANO JOPLIN, MO 64801	R		
MUELLER, ADOLPH R 2700 MC CLELLANO BLVD JOPLIN, MO 64801	ORS				
PADDOCK, CHAS S 3905 RANGE LINE RO JOPLIN, MO 64801	U				
PATTERSON, DONALD R 2509 JACKSON ST JOPLIN, MO 64801	FP				

106—JEFFERSON

ALBANO, BENJ I
P O BOX 380
CRYSTAL CITY, MO 63019
ALLBEE, ROGER H
121 B MISSISSIPPI
CRYSTAL CITY, MO 63019
BAI, SAMUEL S
107 WALNUT ST
FESTUS, MO 63028

110—JOHNSON

COOPER, ROBT L
602 N MC GUIRE
WARRENSBURG, MO 64093
COOPER, ROBT L
P O BOX 458
WARRENSBURG, MO 64093
DAMRON, OSCAR H
308 JONES ST
WARRENSBURG, MO 64093
FOLKNER, ALBERT L
222 E CULTON ST
WARRENSBURG, MO 64093
GONZALEZ, MARIO G
JOHNSON CO MEM HOSP
WARRENSBURG, MO 64093
GROVE, GULPH W
210 E MC PHERSON
KNOB NOSTER, MO 65336
HANNA, HUGH A
ROUTE 7
SOUTH MITCHELL ST.
WARRENSBURG, MO 64093
JOHNSON, CHAS S
502 HURRICANE HILL
WARRENSBURG, MO 64093
JONES, KEITH O
122 E MARKET ST
WARRENSBURG, MO 64093
LEOERER, CHAS M
122 E MARKET ST
WARRENSBURG, MO 64093
MAXSON, THEODORE R
220 E CULTON
WARRENSBURG, MO 64093
RAGLANO, JERRY J
BOX 516
WARRENSBURG, MO 64093

REYNOLDS, M W
P O BOX 86
WARRENSBURG, MO 64093
SICAT, ALFONSO V
510 E GAY
WARRENSBURG, MO 64093

115—LACLEDE

BEALER, LOUIS A
732 S MADISON
LEBANON, MO 65536
CARRINGTON, HOWARD W
P. O. BOX 1142
LEBANON, MO 65536
CASTER, PHILIP W
P. O. BOX 1142
LEBANON, MO 65536
*COURTNER, GARY M
P. O. BOX 1142
LEBANON, MO 65536
PROELICH, RAE W
PENSACOLA EDUCAT. PROGRAM
1201 W. MORENO ST.
PENSACOLA, FL 32501
GAPASIN, ERNESTO M
201 W COMMERCIAL
LEBANON, MO 65536
HITE, OENNIS E
P. O. BOX 1142
LEBANON, MO 65536
SHERMAN, PHILIP A
P. O. BOX 1142
LEBANON, MO 65536

118—LAFAYETTE-RAY

BALDWIN, THEODORE R
1236 JESSE JAMES RD
EXCELSIOR SPRIN, MO 64024
BEST, ROBT B
4300 W 111TH TER
SHAWNEE MISSION, KS 66211
BOYDSTON, CATHERINE O
107 S 2ND ST
ODESSA, MO 64076
BOYDSTON, WYATT W
107 E 2ND ST
ODESSA, MO 64076
BRADY, HUGH S
RR 1
CONCORDIA, MO 64020
COOK, THOS B
802 E MAIN ST
RICHMOND, MO 64085
COPE, JOS S
1110 1/2 MAIN STREET
LEXINGTON, MO 64067
CRAYTON, BILLY G
BOX 41
WAVERLY, MO 64096
CROZIER, FRANKLIN A
201 S COLLEGE AVE
RICHMOND CLINIC
RICHMOND, MO 64085
QAVALT, GEO K
MEDICAL CENTER
RICHMOND, MO 64085
DE MOTTE, JEANNE M
HWY 13 SOUTH
P O BOX 68
RICHMOND, MO 64085
GEORGE, THEODORE
P O BOX 512
RICHMOND, MO 64085
KELLING, JOROAN A
KELLING CLINIC-HOSP
WAVERLY, MO 64096
KUANGPARICHAT, MANOCH
1028 MAIN ST.
LEXINGTON, MO 64067
LA HUE, WILLIAM C
1901 SLEEPY HOLLOW DR
LEXINGTON, MO 64067
LAI, HSIEN-ELL
1712 MAIN
HIGGINSVILLE, MO 64037
MC FADDEN, GENE A
KELLING CLINIC
WAVERLY, MO 64096
MEYER, JERRY L
834 MAIN ST
CONCORDIA, MO 64020
PAVLU, ROBT R
KELLING CLINIC HOSP
WAVERLY, MO 64096
RILEY, CHAS T
220 HIGHWAY 13 SOUTH
RICHMOND, MO 64085
VAJARANANT, MANIT
1028 MAIN
LEXINGTON, MO 64067
WARD, JOE W
1028 MAIN ST
LEXINGTON, MO 64067
WILLIAMS, JOHN W
801 W 15TH
OAK GROVE, MO 64075

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120 — LAKE OF THE OZARKS (Camden-Miller-Morgan-Counties)

BUEHLE, CARL T
6 S MAPLE ST
ELDON, MO 65026
FOTOPOULOS, CHRIS K
P O BOX 128
OSAGE BEACH, MO 65065
GARRISON, THEODORE W
P O BOX 356
CAMDENTON, MO 65020
GUNN, JACK
P. O. BOX 160
VERSAILLES, MO 65084
HALL, CHAS R
P. O. BOX 160
VERSAILLES, MO 65084
HAYDEN, MELVIN R
P. O. BOX 789
CAMDENTON, MO 65020
HOLLEY, DONALD B
P. O. BOX 789
CAMDENTON, MO 65020
KAUFFMAN, RUTH
P. O. BOX 160
VERSAILLES, MO 65084
LYLE, ROBT R
P. O. BOX 160
VERSAILLES, MO 65084
MOSELEY, OTIS O
BOX 248
OSAGE BEACH, MO 65065
SHELTON, EDWARD O
104 W NEWTON
ELDON, MO 65026
SMELTZER, FREDERICK M
LAKE OF THE OZARKS HOSP.
OSAGE BEACH, MO 65065
THARP, JUDITH L
RT 1, BOX 271-M
CAMDENTON, MO 65020
TIETJEN, FRED O
P. O. BOX 187
OSAGE BEACH, MO 65065
VANDIVER, VIRGIL D
P. O. BOX 248
OSAGE BEACH, MO 65065
WASHBURN, JOHN L
BOX 109 BANK BLDG
VERSAILLES, MO 65084

122—LEWIS-CLARK-SCOTLAND

CHAYASIRISOBHON, PINYO
SCOTLAND COUNTY MEM. HOSP.
SIGLER AVE.
MEMPHIS, MO 63555
DAVIS, LANDIS Y
5TH & CLARK STS
CANTON, MO 63435
MOITRA, SHOMENDRA K
P. O. BOX 277
MEMPHIS, MO 63555

126—ST. CHARLES-LINCOLN

ALTMAN, MARTIN P
2850 W CLAY ST
ST CHARLES, MO 63301
ALUL, MOHAMMAD-ALI H
1650 BOONSLICK
ST CHARLES, MO 63301
BAGWE, RANJIT M
1301 BOONSLICK
ST CHARLES, MO 63301
BAIRD, KEIM L
2860 W CLAY ST
ST CHARLES, MO 63301
CABRERA, TOMAS V
79 COTTLEVILLE
ST PETERS, MO 63376
CANTY, EUGENE J
114 N MAIN ST
ST CHARLES, MO 63301
CARPENTER, JAMES L
2 WESTBURY ROOM 6
ST CHARLES, MO 63301
CLEVER, HENRY W
1301 BOONSLICK RD
ST CHARLES, MO 63301
CLEVER, VICTOR G
1005 FAIRGROUNOS
ST CHARLES, MO 63301
COMMERFORD, JOHN F
1301 BOONSLICK RD
ST CHARLES, MO 63301
CONNELLY, MICHAEL W
#18 HUNTLEIGH DOWNS
ST LOUIS, MO 63131
CURRY, MICHAEL J
2850 W CLAY ST
ST CHARLES, MO 63301
DAMRON, EDWARD O
309 GRIFFIN ST
ELSBERRY, MO 63343
DEL PIZZO, FERDINAND
1301 BOONSLICK
ST CHARLES, MO 63301
DESAI, RAVINDRA S
1650 BOONSLICK RD
ST CHARLES, MO 63301

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DI FILIPPO, EMIL A
110 S KINGSHIGHWAY
ST CHARLES, MO 63301
OIETERICH, RUSSELL
1301 BOONSLICK
ST CHARLES, MO 63301
DU MONTER, RENE J
P. O. BOX 8
203 CHURCH ST.
O'FALLON, MO 63366
DULING, GERALD J
ST JOSEPH HOSPITAL
THIRD ST & FIRST CAP
ST CHARLES, MO 63301
QUINCAN, OAVD T
2 WESTBURY DR
ST CHARLES, MO 63301
FELDER, JAMES P
208 S 5TH
ST CHARLES, MO 63301
FLEMING, ROBT J
1005 FAIRGROUNDS
P. O. BOX 1290
ST CHARLES, MO 63301
FRIESEN, RANDALL G
1301 BOONSLICK
ST. CHARLES, MO 63301
GOLDKAMP, JOHN O
2 WESTBURY
ST CHARLES, MO 63301
GORE, GLENN L
1650 BUONSLICK RD
ST CHARLES, MO 63301
HAMMES, ROMAN E
2850 W. CLAY ST.
ST. CHARLES, MO 63301
KAMADA, TSUTOMU
1001 HWY K SUITE 2
O'FALLON MED. CTR.
O'FALLON, MO 63366
KEEFE, DAVID M
#2 WESTBURY ORIVE
ST CHARLES, MO 63301
KELLER, ROBT M
704 W PEARCE BLVD
WENTZVILLE, MO 63385
KEOHANE, MARK
110 SOUTH KINGSHIGHWAY
ST CHARLES, MO 63301
KINGSBURY, ROBT J
222 S 2ND ST
ST CHARLES, MO 63301
KISTER, GEO E
236 THOMAS ST
ST CHARLES, MO 63301
LINSINMEYER, CHARLES M
110 S KINGSHIGHWAY
ST CHARLES, MO 63301
MEYERS, JERRY R
222 SOUTH SECOND ST
ST CHARLES, MO 63301
MILES, WAYNE B
2850 W CLAY
ST CHARLES, MO 63301
MUENSTER, VINCENT P
2850 W CLAY ST
ST CHARLES, MO 63301
MUHM, HARVARD Y
1301 BOONSLICK
ST CHARLES, MO 63301
NEUBEISER, BEN L
1628 NE 6TH CT
FORT LAUDERDALE, FL 33301
OBANOO, FRANCISCO J
TROY, MO 63379
OLSON, RICHARD O
2850 W CLAY ST
ST CHARLES, MO 63301
PERNA, VINCENT P
11636 ADMINISTRATION DR
CREVE COEUR, MO 63141
POGGEMEIER, WM H
120 FIRST CAPITOL DR.
ST CHARLES, MO 63301
RAHMAN, MOHAMMED H
1617 MEWS DR.
KANSAS CITY, MO 64131
REISA, RONALD C
2 WESTBURY
ST CHARLES, MO 63301
ROTER, ALEXANDER M
2 WESTBURY DR
ST CHARLES, MO 63301
ROTHER, PAUL H
1301 BOONSLICK RD
ST CHARLES, MO 63301
ROXAS, GENEROSO P
533 JEFFERSON STREET
ST. CHARLES, MO 63301
RUGGLES, JAMES G
11636 ADMINISTRATION DR
CREVE COEUR, MO 63141
SCHNEIDER, THOS A
2850 W CLAY
ST CHARLES, MO 63301
SCHUETZ, ALFRED
1301 BOONSLICK
ST CHARLES, MO 63301

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*SILL, WILLIAM 235 SHELBURNE DR ST CHARLES, MO 63301	FP	HALL, STANLEY G SYCAMORE SPRING RFD #2	PTH	HUCKSTEP, ROBT A 301 W LIBERTY ST FARMINGTON, MO 63640	IM
SMOLLER, MARTIN B 14 COLONIAL HILL PKWY ST LOUIS, MO 63141	IM	HANNIBAL, MO 63401		KARRAKER, ALVAN G 301 W LIBERTY ST MEDICAL ARTS CLINIC FARMINGTON, MO 63640	GP
SOUCY, JOHN C 2850 W CLAY ST ST CHARLES, MO 63301	IM	HAMLIN, WYETH 711 GRAND AVE HANNIBAL, MO 63401	IM	KIM, LONGIUS H AUSTIN PLAZA POTOSI, MO 63664	GS
STEIMAN, BARRY 11636 CHIEFTAIN CREVE COEUR, MO 63141	OBG	HINDS, ROY D RT #3 HANNIBAL, MO 63401	AN	MARDINI, EDWARD E 30 NORTH ALLEN BONNE TERRE, MO 63628	GS
STUFFLEBAM, BRIAN W 2850 WEST CLAY ST ST CHARLES, MO 63301	IM	JAYANANDIAH, HIREMATHADA 4 BRIARWOOD HANNIBAL, MO 63401	P	MENNE, MARVIN C 109 N MAIN ST IRONTON, MO 63650	GP
SUAREZ-SOLAR, PEDRO L 1360 S 5TH ST SUITE 270 ST CHARLES, MO 63301	P	KRUSE, CARL R 706 S DICKERSON ST PALMYRA, MO 63461	FP	MULLEN, JACK 30 N ALLEN ST BONNE TERRE, MO 63628	IM
TASSI, ALBERT A 601 INDIAN HILLS ST CHARLES, MO 63301	GS	KWON, YONGSOO 2910 ST MARYS HANNIBAL, MO 63401	GS	NEUKOM, GEO B 324 E LOCKWOOD ST LOUIS, MO 63119	P
TEJERO, JONAS S 547 FIRST CAPITOL DR ST CHARLES, MO 63301	IM	LIGHTY, CHAS A SHELBYNA, MO 63468	GP	NEWCOMB, ARTHUR D 100B W 10TH ST LAMAR, MO 64759	PD
THIELE, OTTO K 2 WESTBURY ST CHARLES, MO 63301	GS	MANN, JAMES K 4074 HILLSIDE DRIVE HANNIBAL, MO 63401	PD	OLIVER, GEO A MEDICAL ARTS CLINIC FARMINGTON, MO 63640	ORS
UHLEMANN, JOHN H 1301 BOONSLICK ST CHARLES, MO 63301	D	MURPHY, BERNARD L 2000 CRESCENT DR HANNIBAL, MO 63401	ORS	PARKER, GARY J TWIN RIVERS REGIONAL CLINIC P.O. BOX 38 ELLINGTON, MO 63638	GP
UMAR, IBRAHIM S 4200 N. CLOVERLEAF SUITE A ST. CHARLES, MO 63301	PD	PALMER, RUSSELL H 706 S DICKERSON ST PALMYRA, MO 63461	GP	PICHARDO, JAVIER A FARMINGTON STATE HOSP-R FARMINGTON, MO 63640	IM
VAFI, HOUSHANG 3125 LEMAY FERRY RD. ST LOUIS, MO 63125	P	PLOWMAN, EDWARD M B AND L BLDG HANNIBAL, MO 63401	OPH	SIMPELO, RUSTICO V AUSTIN PLAZA POTOSI, MO 63664	GP
VART, GARY R 1650 BOONSLICK ST CHARLES, MO 63301	OBG	RAPP, EARL L BOX 311 HANNIBAL, MO 63401	GP	STEELE, GEORGE M JR. P. O. BOX 329 ELLINGTON, MO 63638	OTO
VIGHI, JAMES R 2850 W CLAY ST CHARLES, MO 63301	OTO	ROLLER, JAMES A 2319 BROADWAY HANNIBAL, MO 63401	D	TAYLOR, VAN W 54 CHURCH ST BONNE TERRE, MO 63628	GP
WALSH, MARTIN J #B MILL RACE CT ST PETERS, MO 63376	IM	ROLLER, MERRILL J 2910 ST MARY'S AVE HANNIBAL, MO 63401	GP	TUTTLE, JAY F 421 HICKORY GLEN LANE ST LOUIS, MO 63141	GS
WESTERFELD, ROY A 1301 BOONSLICK ST CHARLES, MO 63301	PD	STEELE, JAMES C 2802 MARSH AVE HANNIBAL, MO 63401	OBG	WATKINS, GEO L BOX 1745 RANCHO SANTA FE, CA 92067	P
WIPFLER, EARL J 222 S SECOND ST CHARLES, MO 63301	GS	STRANGE, LESLIE C 711 GRAND HANNIBAL, MO 63401	OTO		GS
YAEGER, GERALD A 2444 W CLAY ST ST CHARLES, MO 63301	GP	WALTERSCHEID, JOHN H 1209 BROADWAY HANNIBAL, MO 63401	GP		
		WELL, JULIUS W 111 E OLIVE ST PALMYRA, MO 63461	GP		
130—MARION-RALLS-SHELBY					
AVILA, ESTRELLA Z 110 MAGNOLIA AVE HANNIBAL, MO 63401	IM	138—MINERAL AREA (St. Francois-Iron-Madison- Washington-Reynolds-Bollinger Counties)			
AVILA, PATRICIO C 110 MAGNOLIA AVE HANNIBAL, MO 63401	GS	APPLEBERRY, CHAS H 43 ST. JOE ST. FLAT RIVER, MO 63601	P		
BACH, LYSLE M 4209 W ELY RD HANNIBAL, MO 63401	R	BENTINGANAN, VICTOR D 703 W MAIN STREET FREDERICKTOWN, MO 63645	GS		
BELL, ROBT M P. O. BOX 551 HANNIBAL, MO 63401	P	BOONYASAI, BOONFU W MAPLE ST AT HIGHWAY 2 PILOT KNOB, MO 63663	GP		
BORROMEO, CARLOS J 603 COUNTRY CLUB DR HANNIBAL, MO 63401	PD	CANCELADA, JUAN V NORTH STREET FARMINGTON, MO 63640	OBG		
BUBEN, ROBT W 2910 ST MARYS AVE HANNIBAL, MO 63401	GS	CARLETON, CHAS E MED ARTS CLINIC FARMINGTON, MO 63640	GP		
BUKSTEIN, MICHAEL J 711 GRAND AVE HANNIBAL, MO 63401	GS	CHASTAIN, CHAS W FAMILY HEALTH CARE 815 E. MAIN ST. FLAT RIVER, MO 63601	GP		
BURNS, FRANCIS R TOWER PLAZA CLINIC RD HANNIBAL, MO 63401	OBG	DAVIS, THOMAS N STATE HOSPITAL FARMINGTON, MO 63640	P		
BURTON, DALE F P O BOX 311 HANNIBAL, MO 63401	GS	DENNIS, WM P 1000 N MAIN ST DESLOGE, MO 63601	GP		
CLISHAM, JOHN F B AND L BLDG HANNIBAL, MO 63401	U	DENT, GEORGE W 301 W LIBERTY ST FARMINGTON, MO 63640	OBG		
COMER, JULIAN R RT. 3, BOX 147 NEW LONDON, MO 63459	DR	DEITMER, ROBT F 128 W RUSSELL IRONTON, MO 63650	GP		
FLORENDO, FEDERICO N LEVERING HOSP HANNIBAL, MO 63401	PTH	DIERKER, HARRY D 301 W LIBERTY ST FARMINGTON, MO 63640	GP		
FLORENDO, PURIFICACION T TOWER PLAZA-CLINIC RD HANNIBAL, MO 63401	OBG	DURST, EDWARD F 301 W. LIBERTY FARMINGTON, MO 63640	GS		
FOREMAN, PHILLIP B P O BOX 311 HANNIBAL, MO 63401	GS	FARMER, NORMA P 709 WARREN ST FARMINGTON, MO 63640	P		
GREENE, HARRY L 109 B VIRGINIA HANNIBAL, MO 63401	CD	GRAY, WALTER C 301 W LIBERTY FARMINGTON, MO 63640	GP		
HA, JUNE Y 711 GRAND AVE. HANNIBAL, MO 63901	IM	HARDY, STANTON L 1000 N MAIN ST DESLOGE, MO 63601	GP		
		HOCTOR, EMMETT F STATE HOSP NO 4 FARMINGTON, MO 63640	P		
				142—MONTEAU FULKS, RICHARD B BOX 410 CALIFORNIA, MO 65018	GP
				GALLAGHER, LIONEL M 102-A DAHLER ST CALIFORNIA, MO 65018	GP
				LATHAM, KENYON S 109 N HIGH CALIFORNIA, MO 65018	GP
				146—MONTGOMERY BYLAND, SAML J 120 HUDSON ST WELLSVILLE, MO 63384	GP
				158—NORTHWEST (Nodaway-Holt-Atchison-Gentry- Worth Counties) BARE, EDWARD F 102 S 6TH TARKIO, MO 64491	GP
				BAUMAN, HENRY C 929 WEST 3RD MARYVILLE, MO 64468	GP
				BLESSING, LARRY HWY 136 EAST ALBANY, MO 64402	IM
				BYLAND, BENJ F P O BOX C MARYVILLE, MO 64468	GS
				CARLIN, ALBERT L PARK AVE STANBERRY, MO 64489	GP
				CARPENTER, WALLACE 100 CASS ST ROCK PORT, MO 64482	GP
				CASTILLO, ISABELO HWY 71 SOUTH MARYVILLE, MO 64468	GS
				DEAN, WALTER E HIGHWAY 71 SOUTH MARYVILLE, MO 64468	FP
				DIZNEY, DESMON M NW MO ST UNIV-COLBERT H MARYVILLE, MO 64468	GP
				DUNDEE, JOHN T ST FRANCIS HOSPITAL MARYVILLE, MO 64468	R
				DUNSHIE, ROBT E 406 1/2 NORTH MAIN STRE MARYVILLE, MO 64468	FP
				HARR, PATRICK B HIGHWAY 71 S MARYVILLE, MO 64468	FP
				HAVALDAR, KANTI L HWY 71 SPO BOX C MARYVILLE, MO 64468	IM

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AM	AOKINS, EDWARO E 1718 S. INGRAM SEOALIA, MO 65301	FP
GP	ALLCORN, OONALO J 1718 SOUTH INGRAM SEOALIA, MO 65301	FP
R	AZAN, KENNETH N 1718 SOUTH INGRAM SEDALIA, MO 65301	IM
GP	BLOCK, JEROME E ROUTE 2 BOX 53B SEOALIA, MO 65301	IM
GS	BRAZOS, JOHN C RR #6 SEOALIA, MO 65301	U
GP	CAMPBELL, ALBERT J 625 E 13TH ST SEDALIA, MO 65301	GP
GP	COLE, WM R RT 1 SMITHTON, MO 65350	GS
GP	OAUM, HAROLD F RTE 1 SEOALIA, MO 65301	R
PO	EOMONOS, ROBT W 1718 S INGRAM SEOALIA, MO 65301	PO
IM	EDNAROS, OAVIO R 700 S LIMIT AVE SEOALIA, MO 65301	GP
R	ELOENBURG, OONALO O 700 S LIMIT SEDALIA, MO 65301	GP

KARSON, HARTLEY J	ORS	HAMMER, CHRISTIANA V	GP	ABADA, ELEANOR S	PTH
1718 S INGRAM		PHHELPS COUNTY HOSP		716 HANLEY INDUSTRIAL CT.	
SEDALIA, MO 65301		ROLLA, MO 65401		ST. LOUIS, MO 63144	
FARKAS, JAMES R	R	HEILBRUNN, ILSE	OS	ABADA, ROLAND	AN
BOTHWELL MEMORIAL HOSPI		1203B FORUM		12527 RIDGEMOOR LAKE CT.	
RADIOLOGY DEPT		ROLLA, MO 65401		ST LOUIS, MO 63131	
SEDALIA, MO 65301		KHAN, MOHAMMED V.H.	IM,	ABBOUD, NABIL	AN
FISHER, STANLEY D	GP	4432A LOUISIANA AVE.		216 S KINGS HIGHWAY	
1313 W. 16TH ST		ST. LOUIS, MO 63111		ST LOUIS, MO 63110	
SEDALIA, MO 65301		MART1, LARRY B	ORS	ABEL, CHAS C	IM
FRANK, GAIL R	ORS	1100 W 10TH ST		4511 FOREST PARK	
4240 BLUE RIDGE BLVD		ROLLA, MO 65401		ST LOUIS, MO 63108	
KANSAS CITY, MO 64133		MATSUDA, GORDON T	U	ABEL, OLIVER	IM
GLASS, ROBT L	GS	1100 W. 10TH ST		4511 FOREST PARK BLVD	
1501 SOUTH GRAND		ROLLA, MO 65401		ST LOUIS, MO 63108	
SEDALIA, MO 65301		MITCHELL, ROY E	GP	ABELARDO, MIGUEL L	IM
HOPKINS, THOMAS S	IM	RT. 5, BOX 36		300 S GRAND	
1704 S INGRAM		SALEM, MO 65560		ST LOUIS, MO 63103	
SEDALIA, MO 65301		MYERS, JAMES M	GP	ABELL, WALTER E	PH
HOPKINS, THOS J	GP	1016 W 12TH ST		6264 REGER PL	
700 S LIMIT ST		ROLLA, MO 65401		ST LOUIS, MO 63139	
SEDALIA, MO 65301		PASKON, SETH	IM	ABINOJA, CONRADO B	IM
HOROCHOWSKY, ALEJANDRO	GS	3RD JACKSON		4909 LINDENWOOD	
1704 SOUTH INGRAM		SALEM, MO 65560		ST LOUIS, MO 63109	
SEDALIA, MO 65301		PENDELL, PAUL W	GS	ABODEELY, DANIEL	R
AMY, JOHN E	OS	1662 POINT BLANK LOOP		586 PINETREE LAKE	
400 DAL-WHI-MO COURT		CANNON AIR FORCE BAS		CHESTERFIELD, MO 63017	
SEDALIA, MO 65301		CLOVIS, NM 88101		ABRAMS, MORRIS	U
LOWE, ALVIN L	GP	POJANASOMBOON, PICHAT	OPH	4625 LINDELL BLVD STE 3	
621 W 16TH		1100 W 10TH ST		ST LOUIS, MO 63108	
SEDALIA, MO 65301		ROLLA, MO 65401		ABRAMSON, CHAS L	R
MADDOX, ALBERT R	US	RUSSELL, BARBARA E	PD	456 N NEW BALLAS	
116 1/2 W MAIN		11TH AND BISHOP		ST LOUIS, MO 63105	
SEDALIA, MO 65301		ROLLA, MO 65401		ABU-OSBA, YOUSEF K	PD
OWENS, JOHN H	PTH	SAUNDERS, CAROL S	PD	500 S. KINGSHIGHWAY	
BOTHWELL MEMORIAL HOSPI		C/O RUSSELL YOUNG CLINI		ST. LOUIS, MO 63110	
SEDALIA, MO 65301		11TH AND BISHOP ST		ACKER, HARRY L	PM
PROCTOR, DONALD C	GP	ROLLA, MO 65401		950 FRANCIS	
700 S LIMIT ST		SAUNDERS, JOHN A	PD	ST LOUIS, MO 63105	
SEDALIA, MO 65301		RT 4 BOX 197		ACKERMAN, LAUREN V	PTH
ROBERTS, PAUL A	OS	ROLLA, MO 65401		#8 CHICKADEE WAY	
110 W MARSHALL		SHUKLA, JYOTINDRA D	IM	SETAUKET, NY 11733	
SWEET SPRINGS, MO 65351		W 3RD STREET		ADELMANN, EUGENE	N
STAUFFACHER, C G	GP	SALEM, MO 65560		12166 BIG BEND RD.	
700 S LIMIT AVE		SLAHOREK, GEORGE J	PTH	SUITE 205	
SEDALIA, MO 65301		GEN LEONARD WOOD ARMY H		ST LOUIS, MO 63122	
STEWART, ROBT H	R	PATHOLOGY DEPT		ADEYEMI-DORO, HENRY O	GS
201 DRIFTWOOD DR		FORT LEONARD WO, MO 65473		6000 W. FLORISSANT	
SEDALIA, MO 65301		SMITH, TED P	FP	ST LOUIS, MO 63136	
STOCKWOOD, ROBT C	OBG	S&S ACRES ROUTE 2		ADLER, BENARD C	OTO
1718 S INGRAM		ROLLA, MO 65401		4511 FOREST PARK BLVD	
SEDALIA, MO 65301		STRICKER, EMIL A	GS	ST LOUIS, MO 63108	
SULL, WON-JONG	GS	10TH & BISHOP		AFF, HELEN	PD
1501 SOUTH GRAND		ROLLA, MO 65401		1412 SPOEDE RD	
SEDALIA, MO 65301		TANG, TEODORO	GS	ST LOUIS, MO 63131	
VAN DYKE, ELMER H	OBG	BOX 437		AFUWAPE, EMMANUEL A	GS
1718 S INGRAM		SALEM, MO 65560		2102 STATE ST.	
SEDALIA, MO 65301		THEOBALD, STERLING	GP	BOX 2677	
WALTER, ARCHIE L	GP	BOX 7116 A		E. ST LOUIS, IL 62205	
1000 WEST 7TH STREET		ST. LOUIS, MO 63177		AGASINO, ARMELA M	GP
SEDALIA, MO 65301		WHITE, EUGENE F	OBG	#6 WEST SHORE VILLAGE	
WORLEY, CHAS A	GP	700 W 11TH ST		CUBA, MO 65453	
204 RUBY ST		ROLLA, MO 65401		AGASINO, GAUDENCIO L	OBG
SWEET SPRINGS, MO 65351		WIENCH, DELANE F	PTH	#20 HUGHES FORD ROAD	
		1000 WEST 10TH ST		SULLIVAN, MO 63080	
		ROLLA, MO 65401		AGRESS, HARRY	PTH
		YOUNG, ROBT B	FP	8631 DELMAR BLVD	
		700 W 11TH ST		ST LOUIS, MO 63124	
		ROLLA, MO 65401		AGUINALDO, JAIME A	IM
				9313 MANCHESTER RD	
				ST LOUIS, MO 63119	
				AHADI, ABD U	IM
				13029 AMBOIS DR	
				ST LOUIS, MO 63141	
				AHERN, ARCHIBALD M	IM
				3915 WATSON RD	
				ST LOUIS, MO 63109	
				AHLERING, GEO H	OBG
				621 S NEW BALLAS STE 56	
				ST LOUIS, MO 63141	
				AHMAD, AQEEB	FP
				6917 W. FLORISSANT	
				ST. LOUIS, MO 63136	
				AHMAD, NASEER	IM
				1325 SOUTH GRAND BLVD	
				ST. LOUIS, MO 63104	
				AHMED, NOOR	PS
				4814 FEINE DR.	
				GODFREY, IL 62035	
				AITKEN, LOUIS F	IM
				4989 BARNES HOSPITAL PL	
				5102 QUEENY TOWER BL	
				ST LOUIS, MO 63110	
				AKER, UMIT T	IM
				950 FRANCIS	
				ST LOUIS, MO 63105	
				AKYOL, SALIM	CD
				5505 DELMAR	
				STE 506	
				ST LOUIS, MO 63112	
				AL-ALY, MOHAMMED	R
				8129 PERSHING AVE	
				CLAYTON, MO 63105	
				ALBERA, VICTOR H	AN
				RR #2-BOX 236	
				ST CLAIR, MO 63077	
				ALBERT, INGRID	D
				2428 WOODSON	
				ST LOUIS, MO 63114	
			</		

ALEGRE, JORGE M 224 S. WOODS MILL CHESTERFIELD, MO 63017	IM	ARNESON, AXEL N 6536 DEVONSHIRE ST LOUIS, MO 63109	OBG	BALE, ROBERT O 777 S. NEW BALLAS RD. CREVE COEUR, MO 63141	OB
ALEKSANDER, BERNARDO G 300 MANSION HOUSE CTR. ST LOUIS, MO 63102	P	ARNEY, WM G 16 HAMPTON VILLAGE ST LOUIS, MO 63109	P	BALLAL, H S 3915 WATSON RD ST LOUIS, MO 63109	IM
ALEX, MORRIS 522 N NEW BALLAS RD ST LOUIS, MO 63141	IM	ARNOLD, KENNETH J 6107 QUEENY TOWER 4989 BARNES HOSP. PLAZA ST LOUIS, MO 63110	GS	BALLINGER, WALTER F 4960 AUDUBON AVE ST LOUIS, MO 63110	GS
ALEXANDER, GEO K 2821 N BALLAS RO ST LOUIS, MO 63131	GS	ARNOT, JOHN P 1034 S BRENTWOOD BLVD ST LOUIS, MO 63105	ORS	BALSTER, VERNON H 819 LOCUST ST LOUIS, MO 63101	OM
ALLEN, HOLLIS N 2821 NORTH BALLAS RD ST LOUIS, MO 63131	PTH	ARONBERG, JEROME M 141 N MERAMEC ST LOUIS, MO 63105	O	BAMSHAO, JERRY 1125 GRAHAM RD FLORISSANT, MO 63031	D
ALLEN, JAMES H 2821 N. BALLAS ST LOUIS, MO 63131	PTH	ARONSON, ABRAHAM 522 N NEW BALLAS RD ST LOUIS, MO 63141	P	BANDLE, DONALD F 3801 JANUARY AVE ST LOUIS, MO 63109	P
ALLEN, WILLARD M UNIV OF MARYLAND HOSP BALTIMORE, MD 21201	OBG	ARRIBAS, NEVA P QUEENY TOWER BLDG STE 5 ST LOUIS, MO 63110	OPH	BANEZ, COLITA L 5400 ARSENAL ST LOUIS, MO 63144	P
ALLEN, WM E 4951 MAFFITT PL ST LOUIS, MO 63113	TR	ARUNSKI, DAVID L 3535 SO JEFFERSON ST. LOUIS, MO 63118	IM	BANTON, MILAGROS T 13634 PEACOCK FARM RO ST LOUIS, MO 63131	IM
ALMIRON, OSIAS A 120 PROGRESS PKWY MARYLANO HEIGHT, MO 63043	GS	ASGHAR, MOHAMMAO 2119 BELLEVUE #C ST LOUIS, MO 63143	OBG	BANTON, THOMAS J 12255 OE PAUL DR BRIDGETON, MO 63044	ORS
ALONSO, JOSE M 10547 KENNERLY DRIVE ST LOUIS, MO 63128	GP	ASHBY, RICHARO 621 S NEW BALLAS ST LOUIS, MO 63141	NS	BANTON, WM C 13634 PEACOCK FARM RD. ST LOUIS, MO 63131	PH
ALONSO-YAGUE, PASCUAL 4585 WASHINGTON FLORISSANT, MO 63033	IM	AUER, ARTHUR I 667 LANGTON ST LOUIS, MO 63105	GS	BARDSLEY, JOHN L 621 S NEW BALLAS RD ST LOUIS, MO 63141	R
ALTHEIDE, HARVEY E 9 MAGNOLIA OR ST LOUIS, MO 63124	PH	AUFDER HEIDE, G R 216 NORTHLANO MEDICAL B ST LOUIS, MO 63136	IM	BARI, WAGIH 615 S. NEW BALLAS RO. ST. LOUIS, MO 63141	PTH
ALTHEIDE, JOHN P 477 CLAYTON RO BALLWIN, MO 63011	U	AUFORERHEIDE, JOHN F MALLINCKROOT INST. OF RAD ST. LOUIS, MO 63110	OR	BARKEN, ISRAEL 213 STONEY VIEW CT. CREVE COEUR, MO 63141	GS
ALVAREZ, ULISES C 4585 WASHINGTON SUITE A1 FLORISSANT, MO 63033	IM	AUGUSTE, MELEDAIN 4400 LINDELL B-1 ST LOUIS, MO 63108	PD	BARKER, EDWARD T 2821 N BALLAS RO ST LOUIS, MO 63131	PD
ALVIS, EDMUNO B 211 N MERAMEC ST LOUIS, MO 63105	OPH	AUGUSTIN, CESAR P. O. BOX 5386 NAGEL STATION ST LOUIS, MO 63115	R	BARNER, HENDRICK B 1325 S GRANO BLVO ST LOUIS, MO 63104	GS
AMADO-LEGO, DAVIO E 5045 TOWNE CENTRE OR. ST LOUIS, MO 63128	FP	AVINS, LAURENCE R UNIV. CLUB TOWER 1034 S. BRENTWOOD ST. LOUIS, MO 63117	OPH	BARON, RICHARO L MALLINCKRODT INST. OF RAD. 510 S. KINGSHIGHWAY ST. LOUIS, MO 63110	R
AMANAT, HABIBOLLAN 232 S WOODSMILL ST LUKES HOSPITAL CHESTERFIELD, MO 63017	EM	AVIOLI, LOUIS V 216 S KINGSHIGHWAY ST LOUIS, MO 63110	IM	BARRAGAN, HECTOR O 533 COUCH C/O ST.JOS/HOS/MEO/BLDG ST. LOUIS, MO 63122	GS
AMIN, AURORA 177 PLANTATION DRIVE ST LOUIS, MO 63141	P	AYATA, SEORAT M 6420 CLAYTON RD ST LOUIS, MO 63117	AN	BARRETT, SCOTT R 5505 DELMAR ST LOUIS, MO 63112	OBG
AMIN, NAVIN P 607 N GRANO STE 425 ST LOUIS, MO 63103	OPH	AYER, ANGELA G 2601 N. WHITTIER ST. ST. LOUIS, MO 63108	OPH	BARRETT, SCOTT R JR 591 SUNBRIDGE OR. CHESTERFIELD, MO 63017	OBG
AMJAO, MOHAMMAO T 1211 BLAIRSHIRE DR BALLWIN, MO 63011	PO	AYKENT, YAVUZ 950 FRANCIS PL ST LOUIS, MO 63105	CO	BARROW, JACK 35 N CENTRAL AVE ST LOUIS, MO 63105	IM
ANDERSEN, DAVIO A 412 GREENLEAF KIRKWOOD, MO 63122	ORS	AYLWARD, HOWARO J 6651 CHIPPEWA ST LOUIS, MO 63109	PS	BARTELL, MICHAEL F.L. 1035 BELLEVUE AVE. ST. LOUIS, MO 63117	IM
ANDERSON, CHARLES B 6343 ALEXANDER OR CLAYTON, MO 63105	GS	AYLWARD, HOWARO J JR 911 S BRENTWOOD BLVO ST LOUIS, MO 63105	IM	BARTNICK, MITCHEL L RR 2 BOX 38 OE SOTO, MO 63020	GP
ANDERSON, JOHN M 100 N EUCLIO ST LOUIS, MO 63108	P	AYRES, STEPHEN M 1325 SOUTH GRANO BLVD ST LOUIS, MO 63104	CO	BARTON, ROBT W 224 S. WOODS MILL RD. CHESTERFIELD, MO 63017	IM
ANGLO, LUIS B 10004 KENNERLY RO SUITE 155 ST LOUIS, MO 63128	FP	AYVAZIAN, VATCHE H 615 S NEW BALLAS RO ST LOUIS, MO 63141	GS	BASHITI, MOHAMMAD F 660 S EUCLID ST LOUIS, MO 63110	AN
ANSLINGER, OAVIO L 14329 LAKE TAHOE OR CHESTERFIELD, MO 63017	IM	AZUMA, NOBUTAKA 3901 THOLOZAN ST LOUIS, MO 63116	GP	BASSMAN, ROLAND S 1755 SOUTH GRANO ST LOUIS, MO 63104	GP
ANSTEY, GEO C 10449 ST CHARLES ROCK R ST ANN, MO 63074	OBG	AZZAM, FARIO J 1325 SOUTH GRANO BLVO. ST. LOUIS, MO 63104	AN	BAUER, DANIEL J 12908 FERNWAY LANE CREVE COEUR, MO 63141	IM
ANSTEY, JOHN #15 HORTENSE PL ST LOUIS, MO 63108	OBG	BABKA, JOS J 29 BELLERIVE COUNTRY CL GROUNOS ST LOUIS, MO 63141	GS	BAUER, EUGENE A BARNES HOSPITAL PLAZA ST LOUIS, MO 63110	O
ANTONIOU, CHRISTOS A 3434 BRIOGLANO BRIOGETON, MO 63044	PD	BACKER, MATTHIAS H 10345 WATSON RO ST LOUIS, MO 63127	OBG	BAUER, JOHN D 104 NORTHLANO MED BLOG ST LOUIS, MO 63136	PTH
ANWAR, MOHAMMAO A 11115 NEW HALLS FERRY ROAD SUITE 301 FLORISSANT, MO 63033	GE	BAER, JILL M 10004 KENNERLY RO ST. LOUIS, MO 63128	PD	BAUER, JOS A 5 RIDGEWOOD RO ST LOUIS, MO 63124	PD
APTER, JEFFREY T 4940 AUDUBON ST. LOUIS, MO 63110	P	BAGBY, JAMES W #7 COUNTRY LIFE ACRES ST LOUIS, MO 63131	D	BAUER, ROBT A 2386 N HIGHWAY 67 FLORISSANT, MO 63033	FP
AQUINO, TOMAS 615 S NEW BALLAS RO ST LOUIS, MO 63141	PTH	BAGWE, LATA R 12528 LAQUE LAKE COURT CREVE COEUR, MO 63141	OBG	BAUER, SPOMENKO 216 S. KINGSHIGHWAY BLVO. ST LOUIS, MO 63110	AN
ARCELONA, JESUS 3535 S JEFFERSON ST LOUIS, MO 63118	GP	BAHL, OM P 10004 KENNERLY RD. #320 ST LOUIS, MO 63128	CD	BAULA, ARMINO G 609 JEFFERSONIAN DR ST LOUIS, MO 63125	R
ARCHER, CAROL R 1325 S GRAND ST LOUIS, MO 63104	R	BAILEY, ORENAN 6356 CLAYTON RO ST LOUIS, MO 63117	GS	BAUMGARTEN, WALTER EPHRAIM, WI 54211	IM
ARENOS, PROCESO T 120 PROGRESS PKWY MARYLANO HEIGHT, MO 63043	GS	BAILEY, WM H 9157 MILTON AVE ST LOUIS, MO 63114	OPH	BAUSCHARO, FREDERICK D 469 N. HANLEY RD. ST LOUIS, MO 63130	D
ARIAS, FERNANOO 4911 BARNES HOSP PLAZA ST LOUIS, MO 63110	OBG	BALDWIN, RICHARD 1034 SOUTH BRENTWOOD SUITE 958 ST LOUIS, MO 63117	ORS	BEARE, J B 224 S. WOODS MILL RD SUITE 510 CHESTERFIELD, MO 63017	U

BEASLEY, LOUIS K 4555 MANATEE TERR. STUART, FL 33494	GE	BERNDSEN, GERARD H 12933 TOPPING ESTATES S ST LOUIS, MO 63131	FP	BLOOMBERG, GORDON R 777 S. NEW BALLAS RD. ST. LOUIS, MO 63141	PD
BEATO, DAVID L 6305 DEVONSHIRE ST LOUIS, MO 63109	IM	BERNI, ANTHONY A 777 S NEW BALLAS ROAD ST LOUIS, MO 63141	R	BLOUNT, LEE 3737 N KINGSHIGHWAY ST LOUIS, MO 63115	GS
BEATY, WM R 35 MUIFIELD LANE ST LOUIS, MO 63141	OBG	BERNSTEIN, AARON M 7171 DELMAR ST LOUIS, MO 63130	IM	BLYTHER, JAMES G 615 S NEW BALLAS RD ST LOUIS, MO 63141	OBG
BECKER, BERNARD 660 S EUCLID ST LOUIS, MO 63110	OPH	BERRY, JOHN W 621 S NEW BALLAS RD-STE ST LOUIS, MO 63141	IM	BOBROW, JAMES C 211 NORTH MERAMEC ST LOUIS, MO 63105	OPH
BECKER, EDWARD J 511 SO WARSON RD ST LOUIS, MO 63124	U	BERWALD, DAVID M 11789 NATURAL BRIDGE BRIDGETON, MO 63044	GS	BOCCARDO, HUMBERTO 42 HOLLY DR. ST LOUIS, MO 63119	IM
BECKER, ROBT L 2821 N BALLAS RD ST LOUIS, MO 63131	OBG	BERWALD, IRVIN I 747 OLD BOHOMME ROAD ST LOUIS, MO 63132	FP	BOCK, LINDA P 522 N. NEW BALLAS SUITE 206 ST. LOUIS, MO 63141	PD
BECKER, STANLEY C 4401 HAMPTON ST LOUIS, MO 63109	OPH	BETTONVILLE, PAUL J 6331 PERSHING ST LOUIS, MO 63130	IM	BOCKELMAN, CLIFFORD H 2615 BRENTWOOD BLVD ST LOUIS, MO 63144	IM
BECKETTE, EDMUND 1245 GRAHAM RD RM 302 FLORISSANT, MO 63031	OBG	BHATTACHARYA, ARJUN 7200 MANCHESTER RD ST LOUIS, MO 63143	GS	BOEDEKER, JAMES P 1035 BELLEVUE AVE SUITE 205 ST. LOUIS, MO 63117	OB
BECKMAN, DONALD E 4205 VIRGINIA AVE ST LOUIS, MO 63111	GP	BIDDY, RALPH L 965 MASONRIDGE RD ST LOUIS, MO 63141	P	BOEDEKER, ROY V 1035 BELLEVUE AVE ST LOUIS, MO 63117	OBG
BEDWINEK, JOHN 4511 FOREST PARK BLVD. ST. LOUIS, MO 63108	R	BIELLO, DANIEL R 510 SOUTH KINGSHIGHWAY ST LOUIS, MO 63110	DR	BOHIGIAN, GEO M 456 N NEW BALLAS RD. SUITE 259 ST LOUIS, MO 63131	OPH
BEHBAHANI, PARVIZ M ST LOUIS UNIV MED DEPT ST LOUIS, MO 63104	AN	BIGGS, F D 1034 SOUTH BRENTWOOD SUITE 500 ST. LOUIS, MO 63117	IM	BOHLING, COREY A 621 S NEW BALLAS ROAD ST LOUIS, MO 63141	CD
BEHRENS, DONALD T 3654 S GRANO AVE ST LOUIS, MO 63118	GS	BIGGS, JOHN 1034 SO BRENTWOOD SUITE SUITE 800 ST LOUIS, MO 63117	P	BOLDIZAR, ALBERT G 2821 N BALLAS RD ST LOUIS, MO 63131	OPH
BEHRENS, GERALD L 11271 HERMITAGE HILL PL ST LOUIS, MO 63131	GS	BILCHIK, RONALD C 777 S NEW BALLAS ROAD ST LOUIS, MO 63141	OPH	BOLDT, THOS H 3394 MC KELVEY RD BRIDGETON, MO 63044	IM
BEIDLE, RAYMOND J 500 NW PLAZA-RM 513 ST ANN, MO 63074	PD	BILLY, LAWRENCE J 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	GS	BOLES, C R 35 N CENTRAL AVE CLAYTON, MO 63105	PD
BELEW, JOE E 777 S NEW BALLAS RD STE ST LOUIS, MO 63141	OBG	BILSKY, NATHAN 2851 NE 183RD ST MIAMI, FL 33160	IM	BOLINSKE, ROBT E 11722 STUDDT AVE ST LOUIS, MO 63141	A
BELL, MARTIN J 500 S KINGSHIGHWAY ST LOUIS, MO 63110	GS	BINDBEUTEL, DONALD A 25 WILLOW OAK LANE ST LOUIS, MO 63122	GS	BOLLOZOS, GEORGE D 3933 S BROADWAY ST LOUIS, MO 63118	PTH
BENAGE, CLARENCE M 1125 GRAHAM RO FLORISSANT, MO 63031	GS	BINDER, MORTON A 4652 MARYLAND AVE ST LOUIS, MO 63108	IM	BOLTON, ROBT L 740 S 4TH ST ST LOUIS, MO 63102	GS
BENDER, ROBERT L 615 S. NEW BALLAS CREVE COEUR, MO 63141	FP	BINNINGTON, H B 621 S NEW BALLAS RD ST LOUIS, MO 63141	GS	BONACORSI, JOHN 12255 DEPAUL DR. BRIDGETON, MO 63044	OTO
BENEDICT, WILLIAM W 522 N NEW BALLAS RD CREVE COEUR, MO 63141	IM	BINZ, DONALD E II 615 SO. NEW BALLAS RD. ST. LOUIS, MO 63141	FP	BOND, LESLIE F 3400 N KINGS HWY ST LOUIS, MO 63115	GS
BENNETT, JOHN 232 S. WOODS MILL RD. CHESTERFIELD, MO 63017	OBG	BIRCHER, JOHN L 3932 FEDERER PL ST LOUIS, MO 63116	R	BONDURANT, BRYCE H 134 FRONTENAC FOREST ST LOUIS, MO 63131	OBG
BENNETT, KENNETH J 456 N NEW BALLAS RD ST LOUIS, MO 63141	GS	BIRD, H W 10287 CLAYTON ST LOUIS, MO 63124	P	BONFANTI, ALBERT L P O BOX 4148 JENNINGS S ST LOUIS, MO 63136	OBG
BENOIST, WALTER F 119 CHURCH ST ST LOUIS, MO 63135	PD	BIRENBAUM, AARON 10511 OLD OLIVE ST RD ST LOUIS, MO 63141	IM	BONIUK, ISAAC 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	OPH
BERARD, LOUIS N 721 OLIVE ST-ROOM 912 ST LOUIS, MO 63101	U	BIRGE, CLIFFORD A 12 RIOGETOP RICHMOND HEIGHT, MO 63117	IM	BONSANTI, ROBT L 3394 MC KELVEY RD BRIDGETON, MO 63044	IM
BERG, EDWARD F 5 CEOARCREST ST LOUIS, MO 63132	OPH	BISHOP, ARTHUR F MALLINCKRODT INST. OF RAO. 510 S. KINGSHIGHWAY ST. LOUIS, MO 63110	R	BOONKHAM, CHOTCHAI 3466 BRIGELAND OR BRIDGETON, MO 63044	IM
BERG, LEONARD 4989 BARNES HOSP PLAZA- ST LOUIS, MO 63110	N	BISHOP, MARION O 751 ST FRANCIS ST FLORISSANT, MO 63031	GS	BOONSHAFT, BENJE 10511 OLO OLIVE ST RD ST LOUIS, MO 63141	IM
BERG, RALPH 3203 S GRANO BLVD ST LOUIS, MO 63118	GP	BISNO, DANL 8000 BONHOMME AVE CLAYTON, MO 63105	OPH	BOROWSKY, BENJ A 4910 FOREST PK ST LOUIS, MO 63108	IM
BERGER, EDWARD J 300 S GRANO BLVO ST LOUIS, MO 63103	GPM	BLACK, JOSEPH T 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	N	BORTNICK, ARTHUR R 777 S NEW BALLAS RD ST LOUIS, MO 63141	OBG
BERGMAN, HUGO F 2920 MONITEAU OR. ST LOUIS, MO 63121	GP	BLACKMAN, PATRICIA A 300 ALTUS ST LOUIS, MO 63122	PO	BOSCHE, ALFRED J 456 NORTH NEW BALLAS RO. ST. LOUIS, MO 63141	OBG
BERGMANN, DWAYNE L 6500 CHIPPEWA ST ST LOUIS, MO 63109	U	BLAIR, JOHN O 1465 S GRAND ST LOUIS, MO 63104	PTH	BOUHASIN, JOHN D 3720 HAMPTON ST LOUIS, MO 63109	PD
BERGMANN, JOHN F 522 N NEW BALLAS RD ST LOUIS, MO 63141	P	BLAIR, OLGA M 1402 S GRANO ST LOUIS, MO 63104	PTH	BOURJOLLY, WILSON P 1125 GRAHAM RO FLORISSANT, MO 63031	OPH
BERGMANN, MARTIN 8515 OELMAR BLVD ST LOUIS, MO 63124	TS	BLAIR, VILRAY P 42 MAGNOLIA OR. ST LOUIS, MO 63124	ORS	BOURKE, THOS E 3394 MC KELVEY RD BRIDGETON, MO 63044	IM
BERGNER, GRACE E 114 N TAYLOR AVE ST LOUIS, MO 63108	IM	BLASKIEWICZ, ROBERT J 5830 NEOSHO ST. LOUIS, MO 63109	OB	BOVERI, JOS C 1862 POINT OAK OR ST LOUIS, MO 63131	OBG
BERLANO, HARRY I 141 N MERAMEC CLAYTON, MO 63105	R	BLATH, RICHARD A 224 S. WOODS MILL RD. SUITE 510 CHESTERFIELD, MO 63017	U	BOWDERN, EDWARD H 4440 LINOELL APT. 1102 ST LOUIS, MO 63108	GS
BERMAN, WM 4910 FOREST PARK BLVO ST LOUIS, MO 63108	OBG	BLEISCH, VIRGIL R 6150 OAKLAND AVE ST. LOUIS, MO 63139	PTH	BOWEN, STEPHEN F 16 HAMPTON VILLAGE PLZ ST LOUIS, MO 63109	OPH
BERNABE, FLORINIO H 2250 UNION RD ST LOUIS, MO 63125	OBG	BLOCK, ARNOLO S 100 N EUCLIO AVE STE 60 ST LOUIS, MO 63108	P	BOWEN, WILLIAM G 4652 MARYLAND AVE. ST. LOUIS, MO 63108	IM
BERNABE, OFELIA M 1642 FRONTENACWOOD LANE FRONTENAC, MO 63131	IM				

BOWER, RICHARD 4960 AUDUBON ST LOUIS, MO 63110	GS	BROWN, SEYMOUR 2421 BAXTON WAY CHESTERFIELD, MO 63017	AN	CACIOPPO, JOS E 1040 N MASON RD N ST LOUIS, MO 63141	GP
BOWERMAN, HAROLD H 607 N GRAND BLVD ST LOUIS, MO 63103	OTO	BRUCE, HELEN M 3263 HAWTHORNE BLVD ST LOUIS, MO 63104	PH	CADICE, JOHN B 1245 GRAHAM RD APT 408 FLORISSANT, MO 63031	OBG
BOWERS, JAMES E 12166 BIG BEND BLVD KIRKWOOD, MO 63122	PD	BRUNS, KENNETH 7700 FLORISSANT RD ST LOUIS, MO 63121	AN	CAJILI, ANTONIO T 300 S GRAND ST LOUIS, MO 63103	IM
BOWERSOX, WARREN A 319 N 1ST ST PACIFIC, MO 63069	GS	BRYAN, JAMES H 950 FRANCIS PLACE CLAYTON, MO 63105	OPH	CALLAGHAN, GERARO M 1035 BELLEVUE ST LOUIS, MO 63117	OBG
BOWLES, G R 12166 BIG BEND ST LOUIS, MO 63122	IM	BRYAN, WM T 950 FRANCIS PL CLAYTON, MO 63105	OTO	CALLAHAN, DANIEL 1325 S GRAND BLVD ST LOUIS, MO 63104	PS
BOWLES, WM T 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	U	BUCKLEY, PATRICK J 7347A TULANE AVE. ST. LOUIS, MO 63130	PTH	CALLAHAN, DONALO E 11155 DUNN RD RM 201 ST LOUIS, MO 63136	R
BOYARSKY, SAUL 4960 AUDUBON AVE ST LOUIS, MO 63110	U	BUCKY, JAMES G 1034 S BRENTWOOD ST LOUIS, MO 63117	U	CALLAHAN, JOS D 22 W BRENTMOOR PARK ST LOUIS, MO 63105	CHP
BRADLEY, RICHARD V 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	GS	BUDD, JOHN J 9012 MANCHESTER RD ST LOUIS, MO 63144	IM	CALMAN, CARL H 7750 STANFORD UNIVERSITY CITY, MO 63130	GS
BRADY, HARRY R 1609 OUNMRR DR ST LOUIS, MO 63131	OPH	BUETTNER, JOHN B 3106 QUEENY TOWERS BARNES HOSP PLAZA ST LOUIS, MO 63110	GS	CALODNEY, MARTIN M 7247 DELMAR BLVD ST LOUIS, MO 63130	PO
BRANCATO, DONALD H 11155 DUNN RD SUITE 216 ST LOUIS, MO 63136	ORS	BURCH, PHILLIP M 615 S. NEW BALLAS RD. ST. LOUIS, MO 63141	PTH	CAMEL, H M 906 CHAPEL OAKS ST LOUIS, MO 63131	OBG
BRAND, EARL L 120 E LOCKWOOD ST LOUIS, MO 63119	GP	BURCHARO, LUKE L 615 S. NEW BALLAS RD. CREVE COEUR, MO 63144	FP	CAMPOS, FRANCISCO J 11636 ADMINISTRATION DR ST LOUIS, MO 63141	PTH
BRANGLE, ROBT W 765 HIGH HAMPTON RD ST LOUIS, MO 63124	PTH	BURDE, RONALD M 660 S EUCLID AVE ST LOUIS, MO 63110	OPH	CANAAN, SAML A 607 N GRAND BLVD STE 60 ST LOUIS, MO 63103	OPH
BRAUFMAN, HARVEY S 111 CHURCH ST FERGUSON, MO 63135	OPH	BURDGE, ROBERT E 1325 S GRANO BLVD ST LOUIS, MO 63104	ORS	CANLAS, ARSENIO L 7670 SUNRAY LANE ST LOUIS, MO 63123	GS
BREMER, RITA F 3024 ORTON ST ST CHARLES, MO 63301	IM	BURDICK, THERESA A 1325 S. GRAND ST. LOUIS, MO 63104	OBG	CANNON, EDWARD M 1034 BRENTWOOD BLVD STE ST LOUIS, MO 63117	U
BREMSE, HARRY L 6742 PLAINVIEW AVE ST LOUIS, MO 63109	GP	BURGESS, DEAN 9380 ROBYN HILL ST LOUIS, MO 63127	OPH	CANTOR, HARVEY E 11745 OLIVE ST RD ST LOUIS, MO 63141	N
BRENNAN, DANL J 777 S NEW BALLAS RD ST LOUIS, MO 63141	PS	BURKE, ROBT J 6379 DEVONSHIRE AVE ST LOUIS, MO 63109	PD	*CANTOR, SOL F 272 GLEN HOLLOW OR. CHESTERFIELD, MO 63017	EM
BRENNAN, GEO A 3535 S JEFFERSON ST LOUIS, MO 63118	OBG	BURKHART, EDWARD F 621 S NEW BALLAS RD ST LOUIS, MO 63141	D	CAPAPAS-WAKELMAN, L R 9903 GRAVOIS AVE AFPTON, MO 63123	IM
BRENNAN, ROBERT A JR 5376 FERRET ESTATES DR. ST. LOUIS, MO 63128	OB	BURMEISTER, RAY W INTERMED MED CONSULTANT 3535 SO JEFFERSON ST LOUIS, MO 63118	IM	CAPLIN, DAVID A 456 NORTH NEW BALLAS RD. ST. LOUIS, MO 63141	PS
BRENNAN, ROBT A 3535 S JEFFERSON ST LOUIS, MO 63118	OBG	BURNS, EDWARD L JR 621 S. NEW BALLAS CREVE COEUR, MO 63141	IM	CARDENAS, JUAN O 1125 GRAHAM RD FLORISSANT, MO 63031	IM
BRENNAN, ROBT V 533 COUCH AVE. KIRKWOOD, MO 63122	U	BURNS, FRANCIS J 1035 BELLEVUE AVE ST LOUIS, MO 63117	CRS	CARLIN, M R 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	U
BRERETON, ROBT L 206 N CLAY AVE KIRKWOOD, MO 63122	GS	BURNSIOE, CHAS R 206 W ARGONNE KIRKWOOD, MO 63122	GP	CARLS, GARRY L 6420 CLAYTON RD ST LOUIS, MO 63117	R
BRICKER, EUGENE M 2410 RIDGEFIELD RD COLUMBIA, MO 65201	GS	BURR, DONALD C R. R. #3 NASHVILLE, IL 62263	R	CARLSON, ARNE E 3466 BRIDGELAND DR SUITE 150 BRIDGETON, MO 63044	GS
BRIELMAIER, CHARLES 6420 CLAYTON ST LOUIS, MO 63117	AN	BURRIS, GARRETT C 11745 OLIVE ST. ST. LOUIS, MO 63141	PD	CARMICHAEL, KIM A 1230 WILD TURKEY CT. ST. LOUIS, MO 63141	IM
BRIGHAM, DAVID W 1103 OOVERGATE ST LOUIS, MO 63122	OPH	BURST, DONALD O 6500 CHIPPEWA ST ST LOUIS, MO 63109	ORS	CARMODY, JOHN P 12209 ROYAL VALLEY ST LOUIS, MO 63141	IM
BRIMMO, A I 6000 W FLORISSANT ST LOUIS, MO 63136	GS	BURSTEIN, ROBT 911 S BRENTWOOD BLVD ST LOUIS, MO 63105	OBG	CARMONA, GILBERTO V P. O. BOX 91 ARNOLD, MO 63010	PD
BRINKLEY, AVERY B JR. 510 S. KINGSHIGHWAY ST. LOUIS, MO 63110	DR	BUSCH, ANTHONY K 6401 WEST MAIN ST. BELLEVILLE, IL 62223	P	CARONONGAN, CARMELITO M 6150 OAKLAND AVE. ST. LOUIS, MO 63139	GS
BRION, PACELLI E 6500 CHIPPEWA STE 307 ST LOUIS, MO 63109	P	BUSSE, PAUL 120 W MERMOD ST LOUIS, MO 63122	R	CARRANZA, MAURO J P O BOX 10817 ST LOUIS, MO 63129	FP
BRISCOE, JOHN R 7346 A MANCHESTER MAPLEWOOD, MO 63143	GP	BUSSMANN, DONALD W 4 WOOD ACRE RD ST LOUIS, MO 63124	CD	CARRERA, MARIO 5401 S. 37TH ST. ST. LOUIS, MO 63116	FP
BRODEUR, ARMAND E 1465 S GRANO AVE ST LOUIS, MO 63104	R	BUTCHER, HARVEY R 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	GS	CARRIER, JOHN A 300 S GRAND ST LOUIS, MO 63103	IM
BRODY, ARNOLD G 3654 S. GRAND ST LOUIS, MO 63118	FP	BUTSCH, RICHARD H 901 CLAYTON RD BALLWIN, MO 63011	IM	CARROLL, GEO A 6248 A NOTTINGHAM AVE. ST LOUIS, MO 63109	GS
BRONSON, SHAEL S 777 S NEW BALLAS RD ST LOUIS, MO 63141	P	BYRNE, PAUL A 4211 BAYLESS AVE ST LOUIS, MO 63123	PD	CARROLL, GRAYSON L 710 SOUTH HANLEY ROAD ST LOUIS, MO 63105	U
BROOKES, ROBT D 224 SO WOODS MILL RD. SUITE 360 CHESTERFIELD, MO 63017	P	BYRON, FRITZ A 650 MANCHESTER RD BALLWIN, MO 63011	FP	CARROLL, PERCY J 10341 MANCHESTER RD ST LOUIS, MO 63122	GS
BROWN, GORONWY O 6359 WATERMAN AVE ST LOUIS, MO 63105	IM	CABABE, EDMOND B 1325 S. GRAND ST. LOUIS, MO 63104	PS	CARTER, EDWIN E 777 S NEW BALLAS RD CREVE COEUR, MO 63141	ORS
BROWN, BARRY D 35 N. CENTRAL CLAYTON, MO 63105	IM	CABONCE, AUGUST L 6829 PARKER RD FLORISSANT, MO 63033	FP	CARTER, JOHN F 12555 DEPAUL DR. BRIOGETON, MO 63044	IM
BROWN, FREEMAN F III 660 SOUTH EUCLIO ST. LOUIS, MO 63110	AN	CABRAL, GALILEU 14377 WOODLAKE DR CHESTERFIELD, MO 63017	IM	CARY, JOHN M 224 SOUTH WOODS MILL RD. CHESTERFIELD, MO 63017	IM
BROWN, JAMES M 11936 BETH DR ST LOUIS, MO 63126	FP	CACIOLLO, CARLO P 3654 S GRANO BLVD ST LOUIS, MO 63118	IM	CASE, MARY E 13001 DIETERLE LANE ST LOUIS, MO 63127	PTH

CASEY, ARTHUR L 216 SO. KINGSHIGHWAY BLVO. ST. LOUIS, MO 63110	OBG	CHOU, YEN PING ROBT KOCH HOSP 4101 KOCH RD ST. LOUIS, MO 63129	IM	COOPER, THOMAS J 10010 KENNERLY ST LOUIS, MO 63128	PTH
CASEY, EDWIN J 4466 W PINE ST LOUIS, MO 63108	OPH	CHUA, STEVEN 1125 GRAHAM ROAD FLORISSANT, MO 63031	IM	COOPER, THOS P 970 EXECUTIVE PARKWAY SUITE 101 ST LOUIS, MO 63141	EM
CASEY, ELIOT C 615 S NEW BALLAS ST LOUIS, MO 63141	PO	CHUNG, KAP-EUN 205 WEST MAIN FREDERICKTOWN, MO 63645	GS	COPP, RALPH 4989 BARNES QUEENY TOWE ST LOUIS, MO 63110	IM
CASON, ELBERT H 1704 S BROADWAY ST LOUIS, MO 63104	GS	CHUSAK, RICHARD O 2821 N BALLAS RD STE C- ST LOUIS, MO 63131	PS	COROAY, ROBT J 141 N. MERAMEC SUITE 205 ST LOUIS, MO 63105	CHP
CASTASUS, MANUEL A 600 N UNION BLVO ST LOUIS, MO 63108	GS	CIAPCIAK, STANLEY J 1502 ST LOUIS AVE ST LOUIS, MO 63106	GP	CORDER, JAMES C 6420 CLAYTON RD. ST. LOUIS, MO 63117	IM
CASTRO, JUAN M 3654 S. GRANO ST LOUIS, MO 63118	IM	CLARK, RICHARD E 4989 BARNES HOSP PLAZA SUITE 3108 QUEENY TOWER ST LOUIS, MO 63110	TS	CORONADO, MARIO A 10004 KENNERLY RD ST LOUIS, MO 63128	OBG
CATANZARO, ANTHONY F 2705 CLIFTON AVE ST LOUIS, MO 63139	GP	CLASEMAN, WILMA W 3237 LONGFELLOW BLVO ST LOUIS, MO 63104	PH	CORRIGAN, GILBERT E 915 N GRANO ST LOUIS, MO 63106	PTH
CATANZARO, FRANCIS J 1688 FRONTENAC WOODS LANE ST LOUIS, MO 63131	CO	CLAYCOMB, GERALD K 5535 OELMAR BLVO ST LOUIS, MO 63112	OR	CORRY, JAMES M 4989 BARNES HOSP. PLAZA ST. LOUIS, MO 63110	POA
CATANZARO, FRANK J JR. 3660 VISTA ST. LOUIS, MO 63110	OPH	CLAYTON, JILL M 47 CLERMONT LANE ST LOUIS, MO 63124	AN	CORVALAN, JUAN C SUITE 1180 1034 SOUTH BRENTWOOD ST LOUIS, MO 63117	P
CATANZARO, RUDOLPH E 8131 PAGE BLVO ST LOUIS, MO 63130	GS	CLENOENIN, WILLIAM W 1034 S BRENTWOOD ST LOUIS, MO 63141	P	CORWIN, KENNETH O 777 S NEW BALLAS RD STE ST LOUIS, MO 63141	PS
CAYABAY, PEORO C 3610 S BROADWAY ST LOUIS, MO 63118	GP	COBB, MILTON L BARNES HOSP PLAZA ST LOUIS, MO 63110	AN	COSTA, DOMINIC V 1212 S GRANO AVE ST LOUIS, MO 63104	GS
CHACKO, RUTH 817 LISAKAY OR. ST. LOUIS, MO 63122	IM	COBEN, LAWRENCE A 660 S EUCLIO BOX 8111 ST LOUIS, MO 63110	N	COSTELLO, CYRIL J 621 S NEW BALLAS RD ST LOUIS, MO 63141	GE
CHADARATANA, PHADUNG 12666 MASON FOREST OR., ST LOUIS, MO 63141	OTO	COOO, JOHN E 1325 S. GRANO BLVO. ST. LOUIS, MO 63104	GS	COSTELLO, JOHN B 1325 S. GRANO ST. LOUIS, MO 63104	IM
CHAKROBORTTY, H 3654 S GRANO ST LOUIS, MO 63118	U	COOILLA, SOSTENES G 1610 CAMP JACKSON RO CAHOKIA, IL 62206	GS	COSTELLO, JOS P 950 FRANCIS PL ST LOUIS, MO 63105	IM
CHALLONER, DAVIO R OCEAN-ST LOUIS UN SC MEO ST LOUIS, MO 63104	IM	COHEN, EOWARO 4511 FOREST PARK ST LOUIS, MO 63108	R	COSTEN, WILLIAM S 224 S. WOODS MILL RO. CHESTERFIELD, MO 63017	ORS
CHAMNESS, JAMES T 224 S. WOODS MILL RD #420 CHESTERFIELD, MO 63017	PS	COHEN, FRANK 300 S GRANO ST LOUIS, MO 63103	IM	COSTRINO, JOS A 2425 N. BROADWAY ST LOUIS, MO 63102	OM
CHAPLIN, HUGH OEPT OF PREVENTIVE MEO BOX 8113 ST LOUIS, MO 63110	IM	COHEN, HILLARO K 500 NORTHWEST PLAZA STE ST ANN, MO 63074	IM	COVA, RENO R 12255 OE PAUL DRIVE SUI BRIDGETON, MO 63044	NS
CHARLES, BENJ H 2 FIELOING ROAO ST LOUIS, MO 63124	IM	COHEN, ROBERT S 2821 BALLAS RD STE 255 ST LOUIS, MO 63131	OBG	COVERT, RICHARD A 615 SO. NEW BALLAS RO. ST. LOUIS, MO 63141	FP
CHARLES, FRANCOIS 600 N UNION ST LOUIS, MO 63108	CO	COKRHAME, JACK 1125 GRAHAM RD FLORISSANT, MO 63031	IM	COWHERO, DONALO W ST. LOUIS UNIVERSITY 1325 GRANO AVE. ST. LOUIS, MO 63104	OBG
CHARNAS, RAYMONO M 1040 MASON RD N ST LOUIS, MO 63141	IM	COLE, HARRY O 5505 OELMAR BLVD ST LOUIS, MO 63112	NS	COX, MARY E 1034 S BRENTWOOD ST LOUIS, MO 63117	P
CHAVALA, SUOARSAN 2601 N WHITTIER ST. ST. LOUIS, MO 63113	OPH	COLEMAN, DONALO L 800 N. LINDBERGH BLVO. ST. LOUIS, MO 63166	AM	COXE, WM S BARNES HOSP PLAZA ST LOUIS, MO 63110	NS
CHAVES, RUTILLO M 1410 BOBOLINK PL ST. LOUIS, MO 63144	OBG	*COLEMAN, MICHAEL H 144 HARBOR VIEW DR. LAKE ST. LOUIS, MO 63367	FP	COZART, OUANE E 224 S. WOODS MILL RO. CHESTERFIELD, MO 63017	IM
CHAVEZ, SALVADOR 10010 KENNERLY RD ST LOUIS, MO 63128	GS	COLOSI, NICHOLAS J 14769 GREENLOCH CT. CHESTERFIELD, MO 63017	OPH	CRADOCK, THOMAS V 1401 SOUTH GRANO ST LOUIS, MO 63104	GS
CHEHVAL, MICHAEL J 1035 BELLEVUE AVE ST LOUIS, MO 63117	U	COMAS, MANUEL R 514 TENBY TERR MANCHESTER, MO 63011	OBG	CRAFTS, OAVIO 1325 S GRAND ST LOUIS, MO 63104	NS
CHEN, JAMES Z.W. 14014 CAMBERRA CT CHESTERFIELD, MO 63017	TR	COMENS, PHILLIP 6651 CHIPPEWA ST LOUIS, MO 63109	IM	CRAIG, ALAN G 1035 BELLEVUE STE 202 ST LOUIS, MO 63117	P
CHERRE, CHAS J 4511 FOREST PARK BLVD ST LOUIS, MO 63108	R	COMENS, RUTH C 8826 WOODFOX ST LOUIS, MO 63127	AN	CRALLE, ROBERT V 12255 OE PAUL OR SUITE BRIDGETON, MO 63044	GS
CHEUK, SHU-SUM 224 S. WOODS MILL RO. SUITE 430 CHESTERFIELD, MO 63017	GS	CONE, ALFREO J 635 WOOD MILLS RD S CHESTERFIELD, MO 63017	OTO	CRAWFORD-TROTTER, KATH J 35 N CENTRAL ST LOUIS, MO 63105	GP
CHIEFFI, MARGARET J 6744 CLAYTON RD ST LOUIS, MO 63117	A	CONNORS, JOHN P 216 S KINGSHIGHWAY ST LOUIS, MO 63110	CD	CRESPIN, STEPHEN R 4 MC KNIGHT LANE ST LOUIS, MO 63124	IM
CHINSKY, MURRAY 500 NORTHWEST PLAZA STE ST ANN, MO 63074	IM	CONOVER, J M 733 LOCKETT ROAO ST LOUIS, MO 63122	OTO	CRESPO, HORACIO T 245 LITCHFORD CT ST LOUIS, MO 63141	FP
CHIPONGIAN, RAUL A 1672 FOXLEIGH COURT ST LOUIS, MO 63131	OPH	CONRAO, MARSHALL B 100 N EUCLIO AVE ST LOUIS, MO 63108	ORS	CRESPO, REMEOIOS R 245 LITCHFORD CT ST LOUIS, MO 63141	FP
CHIRINO, OCTAVIO R 3533 RITZ CENTER ST. LOUIS, MO 63125	OBG	CONVERY, PAUL B 3915 WATSON ST LOUIS, MO 63139	IM	CRISCIONE, JAMES R 4273 FLORA PLACE ST LOUIS, MO 63110	TS
CHISHTI, M. ISHAQ 6651 CHIPPEWA ST. LOUIS, MO 63109	OPH	COOK, MARVIN 10010 KENNERLY RD ST LOUIS, MO 63128	R	CRISCIONE, JAMES S 1837 GRASSY RIDGE KIRKWOOD, MO 63122	AN
CHIU, TAI-MAO 6420 CLAYTON RD ST LOUIS, MO 63117	AN	COOKSEY, JON O 950 FRANCIS PL CLAYTON, MO 63105	CO	CROWELL, HUGH C 9764 TESSON FERRY RD ST LOUIS, MO 63123	IM
CHO, KYU S 456 N NEW BALLAS SUITE 369 ST LOUIS, MO 63141	ORS	COOPER, JAMES F 12255 OEPAUL OR SUITE 830 BRIDGETON, MO 63044	GS	CUBILLO, ENRIQUE 730 MIOOLE POLO OR ST LOUIS, MO 63105	OR
CHOI, SAE R 157 SOUTH GRAESER RD ST LOUIS, MO 63141	GS	COOPER, THEODORE DEAN CORNELL UNIV MEO C 1300 YORK AVE NEW YORK, NY 10021	CD	CUENTO, OBLENDO A 12166 BIG BENO RD-STE 3 KIRKWOOD, MO 63122	GS

* Doctor of Osteopathy.

COMPONENT SOCIETY ROSTER

CULLUM, ALBERT G MED ARTS BLDG MIDDOLESBDRD, KY 40965	DTO	DE VERA, ANSON E 5085 REYNOSA OR ST LOUIS, MO 63128	AN	DONALDSON, ROBT C VET ADMIN HOSP ST LOUIS, MO 63125	PS
CUNNINGHAM, EDWIN J 164 W CLAYTDN RD BALLWIN, MO 63011	IM	OESNAM, JAMES W 391 MADEWOOD LANE CHESTERFIELD, MO 63017	R	DONATI, ROBT M VET ADMIN HOSP NUCL MEO ST LOUIS, MO 63106	NM
CUSUMAND, JSEPH V 36 LYNNBRDOK RD. ST. LOUIS, MO 63131	US	DEETHS, TONY M 135 LADUEMDNT OR CREVE CDEUR, MO 63141	DR	OONLEY, LEO F 2425 N BROAOWAY ST LOUIS, MO 63102	GS
CUTLER, GORON B JR 3410 TURNER LANE WASHINGTON, DC 20015	IM	OEHNER, JONATHAN O 26 LORENZO LANE-LA OUE ST LOUIS, MO 63124	R	OONOVAN, JOHN F 10007 KENNERLY RD. ST LOUIS, MO 63128	GS
CUTLER, HAROLO M 141 N MERAMEC ST LOUIS, MO 63105	OTO	OEITCHMAN, ROBT B 225 SO MERAMEC SUITE 108 CLAYTON, MO 63105	P	OONOVAN, THOS J 1014 ACCENT OR ST LOUIS, MO 63141	OTO
CUTLER, HARRY 4511 FOREST PARK BLVO ST LOUIS, MO 63108	U	OEL CARMEN, JAIME J 46 WORTHINGTON DR MARYLAND HEIGHT, MO 63043	PTH	DOOLEY, JOS M SUITE 129W 777 S. NEW BALLAS RO. ST LOUIS, MO 63141	N
CZEBRINSKI, EDWARO W 3555 SUNSET OFFICE OR ST LOUIS, MO 63127	IM	DEL ROSARIO, HORACIO O 3809 UNION BLVO ST LOUIS, MO 63104	OM	OORTON, ROBT K 911 S BRENTWOOD BLVD ST LOUIS, MO 63105	IM
DAAKE, JOHN W 48 PORTLANO PL ST LOUIS, MO 63108	GS	DEL VALLF, FERNANOO 777 S NEW BALLAS STE W ST LOUIS, MO 63141	P	OUGHERTY, CHARLES H 3535 S JEFFERSON AVE ST LOUIS, MO 63118	PD
OAAKE, JOHN W JR 48 PORTLAND PLACE ST LOUIS, MO 63108	US	OELCAU, CAREY M 3535 S JEFFERSON ST LOUIS, MO 63118	GP	OOWELL, GEO H 2821 N BALLAS RO ST LOUIS, MO 63131	P
DAGARTZIKAS, A K 12902 TUNDRA TOWN & COUNTRY, MO 63131	OBG	OENES, BELA GENITAL URINARY SURG., LTO. 11155 DUNN ROAD ST. LOUIS, MO 63136	U	DOYLE, CHAS R 1035 BELLEVUE ST LOUIS, MO 63117	GS
DAHM, CHAS H 1009 JULLANA OR BALLWIN, MO 63011	OBG	OENK, ALAN F 3017 FALLBROOK ST LOUIS, MO 63131	GS	ORACE, CHAS C 19 E LOCKWOOD AVE ST LOUIS, MO 63119	GS
OALTON, ARTHUR R 35 N CENTRAL AVE CLAYTON, MO 63105	GS	DESHPANOE, V 716 HANLEY INOUSTRIAL CT. ST. LOUIS, MO 63144	IM	ORAKE, WM L MISSOURI BAPTIST HOSP 3015 N BALLAS RO ST LOUIS, MO 63131	PTH
DAMES, RICHARO J 15 YORK OR ST LOUIS, MO 63117	IM	OESTOUET, JUOY WASHINGTON UNIVERSITY 510 SO KINGSHIGHWAY ST LOUIS, MO 63110	R	ORATLER, STANLEY 7225 CLAYTON RD CLAYTON, MO 63105	OBG
OANDAMUDI, BABU R 5400 ARSENAL ST. ST. LOUIS, MO 63163	FP	OETUCH, MAX 29 WILLOW HILL RD ST LOUIS, MO 63124	PD	DRESCHER, EMMETT B 35 N CENTRAL ST LOUIS, MO 63105	OM
DANFORTH, WM H WASHINGTON UNIVERSITY ST LOUIS, MO 63130	IM	OEVEINE, JOHN B 85 WILLMORE RO ST LOUIS, MO 63109	PUD	OREWS, ROBT C 211 N MERAMEC ST LOUIS, MO 63105	OPH
DANGANAN, CANOIOO S 2206 VIEWROYAL DR ST LOUIS, MO 63131	AN	DEW, THOS A 5505 OELMAR ST LOUIS, MO 63112	PUO	OREY, NORMAN W 950 FRANCIS PL STE 205 CLAYTON, MO 63105	IM
DANGANAN, ELEANA Q 2206 VIEW ROYAL ST LOUIS, MO 63131	AN	OEWALO, PAUL A 4524 FOREST PARK BLVO ST LOUIS, MO 63108	P	DREYER, CARL J 45 GLEN ROAD WEBSTER GROVES, MO 63119	OBG
OANIELS, JOHN S 14636 MILL SPRING CT CHESTERFIELD, MO 63017	IM	OEWIN, EDWARO G 621 S NEW BALLAS RO RM ST LOUIS, MO 63141	P	OROZOA, JOSEPH 12255 DEPAUL OR. BRIDGETON, MO 63044	CD
OANIS, PETER G 2821 N BALLAS RO ST LOUIS, MO 63131	PO	OI CECCO, CHARLES J 2545 OERHAKA RD. FLORISSANT, MO 63033	IM,	ORUCK, NORMAN S 35 N. CENTRAL AVE. CLAYTON, MO 63105	OTO
DANIS, RICHARO K 1401 S GRAND ST LOUIS, MO 63104	GS	OI LEO, SENATRO W 1245 GRAHAM ROAD FLORISSANT, MO 63031	IM,	DUBUQUE, THEODOORE J 1035 BELLEVUE ST LOUIS, MO 63117	GS
DANKNER, ARNOLD 1570 WOOLAKE DR. CHESTERFIELO, MO 63017	IM	OI PASCO, DONALO J 51 MAGNOLIA OR ST LOUIS, MO 63124	OBG	OUEMLER, ROBT H 12166 BIG BENO BLVO KIRKWOOD, MO 63122	OBG
OAS, ARABINO A 20 SOUTH THIRO BELLEVILLE, IL 62221	N	OICK, EARL 7314 FOREST HAVEN ESTATES ST LOUIS, MO 63123	IM	OUFFY, FRANCIS G 8116 UNIVERSITY OR ST LOUIS, MO 63105	AN
DASH, IRA 6500 CHIPPEWA ST LOUIS, MO 63109	AN	OICK, MARY W 141 NO MERAMEC AVE. SUITE 205 ST. LOUIS, MO 63105	P	OUGAS, HENRY C 3737 N. KINGSHIGHWAY BLVD. ST. LOUIS, MO 63115	FP
OASH, UOAYA N 6500 CHIPPEWA ST ST LOUIS, MO 63109	ORS	OICKLER, OONALO J 833 AUOBON OR ST LOUIS, MO 63105	P	OUGGAN, JOHN J 10805 SUNSET OFFICE OR ST LOUIS, MO 63127	OBG
DAVIDSON, JOHN A 5535 OELMAR ST. LOUIS, MO 63112	IM	OIEHR, MAURICE A 1530 BEDFORO CT APT 14 CHESTERFIELO, MO 63017	AN	OUGGER, DAVID E 2318 S. MILTON OVERLAND, MO 63114	OB
DAVIOSON, MORRIS 35 N CENTRAL AVE CLAYTON, MO 63105	OTO	OIEMER, PETER A 12302 IRONSTONE ST LOUIS, MO 63131	GS	DUMADAG, VIRGILIO P 3015 N BALLAS RD ST LOUIS, MO 63131	PTH
OAVIS, CHARLES L 6919 GROVELAND ST LOUIS, MO 63121	OBG	OIERBERG, OALE F 2753 AUTUMN RUN CT. CHESTERFIELO, MO 63017	R	OUNN, ROBERT C JR ST. LOUIS UNIV. MED. CTR. 1325 S. GRAND ST. LOUIS, MO 63104	NS
OAVIS, GENE L 11133 DUNN RO ST LOUIS, MO 63136	DR	DIESTELHORST, JAMES A 14377 WOOLAKE OR CHESTERFIELO, MO 63017	DR	OUREL, JUSTIN H 1325 S GRANO ST. LOUIS, M 63104	OBG
DAVIS, MARTIN W 911 S BRENTWOOD BLVD CLAYTON, MO 63105	IM	OILLARO, BURL M ST. JOS.HOSP. MEO. BLDG. 533 COUCH AVE. ST. LOUIS, MO 63122	IM	OOUR, JON W 2821 N BALLAS RO ST LOUIS, MO 63131	PTH
DAVIS, MARY A 456 N NEW BALLAS RD STE ST LOUIS, MO 63141	P	DMYTRYK, EUGENE T 621 S NEW BALLAS RO ST LOUIS, MO 63141	GS	OOUVALL, JOSEPH M 2821 N. BALLAS TOWN & COUNTRY, MO 63131	O
DAVIS, SHELTON 11155 OUNN RD ST LOUIS, MO 63136	OTO	OOGGE, PHILIP R OEPT OF PEOIATRICS WASH 500 S KINGSHIGHWAY ST LOUIS, MO 63178	GS	DWORKIN, SAUL 4632 S GRANO ST LOUIS, MO 63111	FP
DE CASTRO, EOWINO T 3933 SOUTH BROADWAY ST LOUIS, MO 63118	AN	OIOISY, PHILIP P 325 N KIRKWOOD RO KIRKWOOD, MO 63122	N	OWYER, JAMES G 615 S. NEW BALLAS ST. LOUIS, MO 63141	IM
DE JESUS CARBONEL, A 615 S NEW BALLAS RD ST LOUIS, MO 63141	AN	OIOISY, ROBT A 126 E. JEFFERSON AVE. ST. LOUIS, MO 63122	IM	OYER, CURTIS W 615 S. NEW BALLAS RD. CREVE COEUR, MO 63141	FP
DE LEON, ROMUALOO V 525 JEFFCO BLVO ARNOLD, MO 63010	IM	OOLAN, JOHN T 3915 WATSON RO ST LOUIS, MO 63109	IM	DYER, OALLAS J 3915 WATSON RO ST LOUIS, MO 63109	IM
OE SILVA, ANANOA 2050 TRAMORE CT. CHESTERFIELD, MO 63017	PO		GS	DZUNDZEV, PENCO T 3601 S JEFFERSON AVE ST LOUIS, MO 63118	FP
OE UNGRIA, PABLO C 6744 CLAYTON ROAD ST LOUIS, MO 63117	OBG				

EACHEMPATI, RAMA G 6304 S. GRANO BLVD. ST. LOUIS, MO 63111	IM	ENGELSTAO, BARRY L MALLINCKRDT INST. OF RAD. 510 S. KINGSHIGHWAY ST. LOUIS, MO 63110	R	FEIT, ROBERT M 554 KINGDEL UNIVERSITY CITY, MO 63124	U
EACHEMPATI, UMA R 6304 S GRANO ST. LOUIS, MO 63111	OBG	EPSTEIN, JAMES M 114 N TAYLOR AVE ST LOUIS, MO 63108	IM	FELDMAN, DAVID 11501 LAKESHORE DR ST LOUIS, MO 63141	IM
EADES, OEE W 6 KINGSBURY PL ST LOUIS, MO 63111	FP	ERNST, EDWIN C 14377 WOODLAKE DR SUITE 110 CHESTERFIELD, MO 63017	R	FELOMAN, MARK R 216 SO. KINGSHIGHWAY ST. LOUIS, MO 63110	OBG
EADES, JOS W 4910 FOREST PARK ST LOUIS, MO 63108	PS	ERNST, JOS G 325 N KIRKWOOD RD KIRKWOOD, MO 63122	IM	FELICIANO, WILFRIDO C 1245 GRAHAM RO FLORISSANT, MO 63031	PS
EAGLETON, MARK O 1148 WEIDMAN RD MANCHESTER, MO 63011	R	ERNST, RICHARD E 14377 WOODLAKE DR SUITE 110 CHESTERFIELD, MO 63017	R	FELIX, ROBT H 10501 INOIAN WELLS DR SUN CITY, AZ 85351	P
EAKIN, KENNETH M 615 S. NEW BALLAS ST. LOUIS, MO 63141	FP	ERNST, ROLAND P 12327 CREEKHAVEN ST LOUIS, MO 63131	R	FELLER, HAROLO H NORTHLANO MO BLD ST 201 ST LOUIS, MO 63136	FP
EARP, RALPH K P O BOX 614 MEXICD, MO 65265	ORS	ESCOBEDO, BOLIVAR M 13975 MANCHESTER ROAD MANCHESTER, MO 63011	R	FELLHAUER, CARL M 1035 BELLEVUE RICHMOND HEIGHT, MO 63117	ORS
EBEL, EUGENE H 11115 NEW HALLS FERRY FLORISSANT, MO 63033	PO	ESCOFFERY, RICHARD F 5103 QUEENY TOWERS 4989 BARNES HOSPITAL ST LOUIS, MO 63110	OBG	FELTS, JAMES A 45 BERRY RO PARK ST LOUIS, MO 63122	AN
EBERLE, VINCENT L 141 N MERAMEC AVE ST LOUIS, MO 63105	OBG	ESSLINGER, ARTHUR T B16 IDLEWILLO WAY SIESTA KEY SARASOTA, FL 33581	OPH	FERGUSON, THOS B 49B9 BARNES HOSP PLAZA ST LOUIS, MO 63110	TS
ECK, BIRKLE 1819 CAMBERLY ROAD ST LOUIS, MO 63131	IM	ESTES, JACK M SUITE #4 493 RUE ST FRANCOIS FLORISSANT, MO 63031	OBG	FERRINOELLI, JAMES A 660 S EUCLID ST LOUIS, MO 63110	N
ECKER, DESIOER B P O BOX 448 PACIFIC, MO 63069	FP	ESTRADA, CDRAZON D 11155 DUNN RD ROOM 104 ST LOUIS, MO 63136	FP	FERRIGNI, FILIPPO J 1515 LAFAYETTE AVE. ST. LOUIS, MO 63104	IM
ECKERT, CLARENCE T 2295 GULF OF MEXICO DR LONGBOAT KEY, FL 33548	GS	ETHEREDGE, EDWARD E WASH UNIV DEPT SURG ST LOUIS, MO 63110	R	FERRO, ANTHONY L 920 BELLESTRI OR. MANCHESTER, MO 63011	P
EDELE, EUGENE H 3B90 FEDERER PL ST LOUIS, MO 63116	FP	ETIENNE, ROBT B 6000 WESTMINSTER ST LOUIS, MO 63112	IM	FERRY, RICHARD J 141 MERAMEC ST CLAYTON, MO 63105	N
EDELMAN, ALAN H 2821 N BALLAS RD ST LOUIS, MO 63131	DR	ETO, JACKSON K 6651 CHIPPEWA ST ST LOUIS, MO 63109	PD	FETICK, PAUL G 12660 LAMPLIGHTER SQ. ST LOUIS, MO 63128	PD
EOWARDS, JAMES E 522 N NEW BALLAS RD ST LOUIS, MO 63141	CHP	EVANS, LAWRENCE G 1325 S GRANO ST LOUIS, MO 63104	GS	FEUTZ, EOWARO P 19 RIDGEMOOR DR ST LOUIS, MO 63105	R
EDWAROS, JDS C 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	CO	EVENS, RONALD G 510 S KINGSHIGHWAY ST LOUIS, MO 63110	IM	FIGUERDA, EODUYN 12300 OLIVE ST. SUITE 309 ST LOUIS, MO 63141	CHP
EGAN, ROBT C 1034 S. BRENTWOOD BLVO. SUITE 776 ST LOUIS, MO 63117	GS	EVERSOLL, NORTON J 1455 TYLER ST HOLLYWOOD, FL 33020	ORS	FIGUEROA, ELISEO O 11155 DUNN RO ST LOUIS, MO 63136	IM
EGAN, THOS F 9852 NORTHBRIEGE ST LOUIS, MO 63124	R	EXARHOU, KLARK 777 S NEW BALLAS ROAO ST LOUIS, MO 63141	R	FINGERHOOD, MARVIN G 1195 CIMARON DR ST LOUIS, MO 63132	IM
EGGLESTON, HARRY C 621 S NEW BALLAS RD ST LOUIS, MO 63141	OPH	EYERMAN, EOWARD L 1035 BELLEVUE AVE ST LOUIS, MO 63117	OS	FINGERT, HYMAN H 100 N EUCLIO ST LOUIS, MO 63108	P
EGGLESTON, THOS F 621 S NEW BALLAS ST LOUIS, MO 63141	OPH	FABIAN, LEONARD W 660 S EUCLID ST LOUIS, MO 63110	GS	FINK, LEROY 11155 OUNN RD STE 206 ST LOUIS, MO 63136	GS
EHRLICH, CARL F 777 S NEW BALLAS RD ST LOUIS, MO 63141	OTO	FABITO, DANIEL C 120 PROGRESS PKWY HAZELWOOD, MO 63043	N	FINKEL, BARNEY W 6508 W FLORISSANT ST LOUIS, MO 63136	FP
EIDELMAN, JACK R 141 N MERAMEC ST LOUIS, MD 63105	P	FABITO, MELINDA A P. O. BOX 446 #B VILLAGE CENTER EUREKA, MO 63025	AN	FINN, MURRAY E 1035 BELLEVUE STE 202 ST LOUIS, MO 63117	P
EIMER, CHAS E 6 BEL AIR ORIVE SIKESTON, MO 63801	OTO	FAIR, WM R 4960 AUDUBON ST LOUIS, MO 63110	GS	FINNEGAN, JOS V 1035 BELLEVUE ST ST LOUIS, MO 63117	IM
EISEN, ARTHUR Z BARNES HOSP PLAZA ST LOUIS, MO 63110	O	FAJATIN, ROMULO J #2 WESTBURY ST. CHARLES, MD 63301	IM	FIORELISI, ROCCO J 700 HAVERFORD RD ST LOUIS, MO 63124	GS
EKUNNO, JOSIAH O 4451 NATURAL BRIDGE ST. LOUIS, MO 63115	OB	FAKHRAEE, SAID H 500 S. KINGSHIGHWAY ST. LOUIS, MO 63110	U	FISCHBEIN, LEWIS C 1034 SOUTH BRENTWOOD BLVO. ST. LOUIS, MD 63117	RHU
ELCOCK, DEVERA M 615 S. NEW BALLAS RD. CREVE COEUR, MO 63141	FP	FALLON, RICHARD H 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	IM	FISCHER, JOHN R 12255 OE PAUL OR BRIDGETON, MO 63044	P
ELDER, DONALD G 615 S. NEW BALLAS RO. ST. LOUIS, MO 63141	FP	FARBERMAN, ELLIOTT 437 FALAISE DR CREVE COEUR, MO 63141	PD	FISCHER, ROBERT 707 E. MONROE ST. LOUIS, MO 63122	IM
ELIASSON, SVEN G 660 S EUCLIO ST LOUIS, MO 63110	N	FARRELL, JOHN S 12255 DEPAUL DR. BRIDGETON, MD 63044	GS	FISH, RICHARD G 4370 FOREST OE VILLE DR ST LOUIS, MO 63129	OPH
ELLER, CHAS H 250 E ALAMEOA SANTA FE, NM 87501	PH	FARRELL, ROBT J 9060 SARANAC DR ST LOUIS, MO 63117	PD	FISH, VIRGIL O 2500 TOWN & COUNTRY LA. ST LOUIS, MD 63131	GS
ELLERSIECK, DOROTHY M 10437 EWELL ST LOUIS, MO 63137	FP	FARZANA, FARIDA 6 WEDGEWOOD LN ST LOUIS, MD 63141	IM	FISHER, LINDA 5505 DELMAR SUITE 503 ST LOUIS, MO 63112	IM
ELLSASSER, JAMES C 1034 BRENTWOOD BLVD ST LOUIS, MO 63117	ORS	FATHMAN, ANTHONY E 224 S. WOOS MILL RD. SUITE 510 CHESTERFIELD, MD 63017	IM	FISHMAN, JOHN J 3015 N BALLAS RD ST LOUIS, MO 63131	AN
ELSON, JULIUS 1245 GRAHAM RO FLORISSANT, MO 63031	CD	FEHRENBACHER, KIM A 615 SO. NEW BALLAS RO. ST. LOUIS, MO 63141	P	FISHMAN, NORMAN 777 S NEW BALLAS RO. ST. LOUIS, MO 63141	END
EMERAN, GEORGES J 600 NORTH UNION ST LOUIS, MO 63108	U	FEIBEL, ROBT M 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	U	FITZGERALD, LEO P BETHESDA HDME 9645 BIG BEND ST LOUIS, MO 63122	OBG
EMERSON, DANIEL P 615 S. NEW BALLAS RD. CREVE COUER, MO 63141	EM			FITZGERALD, WM T 3915 WATSON RD ST LOUIS, MD 63109	IM
EMERSON, REYNOLDS L 1695 BRENTWOOD BLVO S BRENTWOOD, MO 63144	FP			FIIVIAN, GERALO J 2821 N BALLAS RD ST LOUIS, MO 63131	OPH
EMERSON, WILLIAM A 11150 OUNN RO STE 105 ST LOUIS, MO 63136	IM			FLANCE, ISRAEL J 4652 MARYLANO ST LOUIS, MO 63108	PUO

FLANIGAN, GEO D 2827 LAWTON PROMENADE ST LOUIS, MO 63103	OBG	FREIMAN, SEYMOUR M 1034 S. BRENTWOOD #616 ST LOUIS, MO 63117	OBG	GENTSCH, KENNETH W 114 N TAYLOR ST LOUIS, MO 63108	CD
FLEISHMAN, ALFREO 10358 CHIMNEY ROCK ST LOUIS, MO 63141	IM	FREUND, SAML J 8515 DELMAR ST LOUIS, MO 63124	CRS	GEORGE, PHILIP G 1034 S BRENTWOOD BLVD ST LOUIS, MO 63105	ORS
FLETES, JAMES W 7270 NATURAL BRIDGE AVE ST LOUIS, MO 63121	FP	FRIEDMAN, IRA J 2428 WOODSON RO OVERLAND, MO 63114	PD	GERMUTH, FREDERICK G 615 S NEW BALLAS RO ST LOUIS, MO 63141	PTH
FLORENCE, KERRY E ST. JOHN'S MERCY MEO. CTR. 615 S. NEW BALLAS RD. ST. LOUIS, MO 63141	FP	FRIEDMAN, PAUL L 7332 CORNELL ST LOUIS, MO 63130	AN	GEROWIN, LANCE 9408 W MILTON ST LOUIS, MO 63114	GS
FLORES, JHONSON E 12129 COUNTRY MANOR ST. LOUIS, MO 63141	AN	FRIEDMAN, ROBT H 2821 N BALLAS RD ST LOUIS, MO 63131	PD	GERST, ALOYSIUS C 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	PD
FLORES-VEGA, CARLOS H 3915 WATSON RO ST LOUIS, MO 63109	IM	FRIEDMAN, WILLIAM H 1325 SOUTH GRAND BLVD. 2ND FLOOR ST. LOUIS, MO 63104	OTO	GERST, JAMES 11115 NEW HALLS FERRY RO FLORISSANT, MO 63033	PD
FLORO, MARIANO N 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	GS	FRIEDRICH, ANTHONY P 12303 DEPAUL OR HAZELWOOD, MO 63044	EM	GHOSH, NELLIE 114 N TAYLOR AVE ST. LOUIS, MO 63108	CO
FLLOTTE, BERNARO H 6 LILA LANE FLORISSANT, MO 63033	IM	FRIEDRICH, ERNST R 4911 BARNES HOSP PLAZA ST LOUIS, MO 63110	OBG	GIESELMAN, RALPH V 224 S. WOODS MILL RD. CHESTERFIELD, MO 63017	IM
FLLOTTE, SYLVESTER A 466 RUNNYMEOE DR ST LOUIS, MO 63141	IM	FRIES, ARMAND D 11 W GEYER LN ST LOUIS, MO 63131	OTO	GILDEN, JEROME J 456 N. NEW BALLAS RO. SUITE 369 ST LOUIS, MO 63141	ORS
FLUG, ERIC J 533 COUCH KIRKWOOD, MO 63122	US	FRIES, JOHN W 10010 KENNERLY ROAO ST LOUIS, MO 63128	R	GILLESPIE, WILLIAM J 621 S. NEW BALLAS RD. ST. LOUIS, MO 63141	TS
FLYNN, EDWARD P 9730 E WATSON RD ST LOUIS, MO 63126	IM	FRISKEL, ARTHUR K 7500 OEVSCHIRE ST LOUIS, MO 63119	IM	GILPIN, DORIS C 7452 AMHERST AVE ST LOUIS, MO 63130	CHP
FLYNN, JOHN T 3211 S GRANO BLVO ST LOUIS, MO 63118	FP	FRUMSON, GUY H 12255 DE PAUL DR BRIOGETON, MO 63044	ORS	GILULA, LOUIS A 250 DIELMAN RD ST LOUIS, MO 63124	DR
FLYNN, JOS E 621 S NEW BALLAS ST LOUIS, MO 63141	GS	FRYER, MINOT P 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	PS	GINSBURG, JORDAN H 456 N NEW BALLAS ROAD SUITE 369 ST LOUIS, MO 63141	ORS
FLYNN, THOMAS T 10007 KENNERLY ROAD ST LOUIS, MO 63128	P	FUJITA, MILTON T 12161 POINT OAK RD ST LOUIS, MO 63131	CHP	GINTHER, JAMES W JR 6420 CLAYTON ST. LOUIS, MO 63117	IM
FOGARTY, WM M 3915 WATSON RO ST LOUIS, MO 63109	IM	FULEIHAN, FARIO M 615 S NEW BALLAS ST LOUIS, MO 63141	U	GIRAPARNONT, BANG-ORN CHRISTIAN HOSP NORTHWES 1225 GRAHAM RO FLORISSANT, MO 63031	OBG
FORO, LEE T WASHINGTON UNIVERSITY 4960 AUDUBON ST LOUIS, MO 63110	ORS	FUNSCH, ROBERT E 6744 CLAYTON RO ST LOUIS, MO 63117	ORS	GIRAPARNONT, PRABHAK 12845 GLENBERNIE ST LOUIS, MO 63141	IM
FORO, THOMAS E OIV OF OPTH. UNIV. OF WVA MEO. CTR. MORGANTOWN, WV 26505	OPH	FURLA, GUS J 57 BROADVIEW OR ST LOUIS, MO 63105	FP	GILAOONEY, JOHN H 100 N EUCLIO AVE-STE 70 ST LOUIS, MO 63108	OTO
FORSEN, JAMES A 14443 BANTRY VILLAGE GREEN APT. #19 CHESTERFIELD, MO 63017	GS	GADO, MOKHTAR H 510 S. KINGSHIGHWAY ST. LOUIS, MO 63110	N	GLAZER, HARVEY S MALLINCROOT INST. OF RAO. ST. LOUIS, MO 63110	DR
FORSMAN, WALOO W 9436 GRAVOIS ST LOUIS, MO 63123	FP	GAGLIAROO, JOSEPH 141 N MERAMEC RM 303 CLAYTON, MO 63105	P	GLINES, MICHAEL H 12 MERAMEC HGTS SHOPPIN ARNOLD, MO 63010	PO
FORSYTH, BRUCE T 100 N EUCLID ST LOUIS, MO 63108	IM	GALAKATOS, ANOREW E 777 S NEW BALLAS ROAD ST LOUIS, MO 63141	OBG	GLOGOVAC, S. VIC 4989 BARNES HOSP. PLAZA ST. LOUIS, MO 63110	ORS
FORTI, JOHN J 1434 CHAMBERS ST LOUIS, MO 63135	FP	GALE, ARTHUR H 2428 WOODSON RO OVERLAND, MO 63114	IM	GLUCK, OSCAR S BARNES HOSP PLAZA ST LOUIS, MO 63110	IM
FOX, LEON J 4511 FORES PARK AVE ST LOUIS, MO 63108	ORS	GALL, IRA C 777 S NEW BALLAS RD ST LOUIS, MO 63141	OBG	GNAOE, ALBERT J 3606 GRAVOIS AVE ST LOUIS, MO 63116	GS
FOX, ROBT E 6744 CLAYTON RD ST LOUIS, MO 63117	IM	GANDLMAYR, JACOB M 1040 N MASON RD ST LOUIS, MO 63141	FP	GOEBEL, JOAN M 5128 JAMIESON ST LOUIS, MO 63119	AN
FRANCISCO, OOMINIC S 777 S NEW BALLAS RO ST LOUIS, MO 63141	R	GANSLOSER, WILBERT M 950 FRANICS PL CLAYTON, MO 63105	P	GOLD, JONATHAN A 12255 OE PAUL DRIVE SUITE 830 BRIOGETON, MO 63044	NS
FRANCOIS, ROORIGUE J 4601 N. WHITTIER ST. LOUIS, MO 63113	OPH	GANTNER, GEO E 1325 S GRAND BLVD ST LOUIS, MO 63104	PTH	GOLDFARB, ALVIN 514 COEUR DE ROYALE OR #405 ST LOUIS, MO 63141	GS
FRANK, ALVIN R 7457 CROMWELL DR ST LOUIS, MO 63105	P	GANTZ, JOHN A 10 MUIRFIELD LANE ST LOUIS, MO 63141	R	GOLGABER, ALBERTO 1034 S BRENTWOOD ST LOUIS, MO 63117	IM
FRANKLIN, HAROLD A 16 HAMPTON VILLAGE PLAZ ST LOUIS, MO 63109	CO	GARCIA-FERRER, EDUAROO A 1420 GRATAN ST LOUIS, MO 63104	IM	GOLMAN, ARNOLD M 522 N NEW BALLAS RD ST LOUIS, MO 63141	IM
FRANKLIN, MAX S 585 COEUR DE ROYALE ST LOUIS, MO 63141	CO	GARFINKEL, BERNARO T 522 N NEW BALLAS RD ST LOUIS, MO 63141	IM	GOLDMAN, GORON M 1125 GRAHAM RD FLORISSANT, MO 63031	OBG
FRASER, OANL M 1035 BELLEVUE AVE ST LOUIS, MO 63117	TS	GARRIGA, FRANCISCO J 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	GS	GOLDMAN, HYMEN J 4511 FOREST PARK ST LOUIS, MO 63108	D
FRAWLEY, THOS F 12255 DE PAUL DR SUITE 865 BRIOGETON, MO 63044	IM	GAVINI, RAJENDRA R 1827 S 39TH ST. ST LOUIS, MO 63110	OBG	GOLMAN, MELVIN L 8631 OELMAR ST LOUIS, MO 63124	IM
FREEDMAN, RUTH S 10287 CLAYTON ROAD ST LOUIS, MO 63124	GS	GEARHART, OAVID L 456 NO NEW BALLAS RD ST LOUIS, MO 63141	P	GOLORING, OAVID 500 S KINGSHIGHWAY ST LOUIS, MO 63110	PDC
FREEL, JAMES H 1325 S. GRANO BLVD. ST. LOUIS, MO 63104	OPH	GEARHART, WILBUR H 2821 N BALLAS RO STE 16 ST LOUIS, MO 63131	IM	GOLORING, SIDNEY 660 S EUCLIO ST LOUIS, MO 63110	NS
FREEMAN, OAVIO M 7316 KINGSBURY ST LOUIS, MO 63105	OBG	GEDNEY, WM B 806 MERAMEC STATION RO VALLEY PARK, MO 63088	NS	GOLOSTEIN, BENJAMIN 2428 WOODSON RD ST LOUIS, MO 63114	IM
FREEMAN, RICHARO BARNES HOSP PLAZA ST LOUIS, MO 63110	OTO	GEISE, AUGUST W 5505 OELMAR ST LOUIS, MO 63112	R	GOLLUB, SAML W 539 COEUR OE ROYALE ST LOUIS, MO 63141	PO
		GEISSE, GUILLERMO OEPT OF RADIOLOGY 6150 OAKLAND ST LOUIS, MO 63139	PO	GOLTSCHMAN, JOHN P 14377 WOOLAKE OR CHESTERFIELD, MO 63017	OPH

GOMEZ, CESAR A 777 S NEW BALLAS SUITE 117E ST LOUIS, MO 63141	GS	GURSAHANI, MAN MOHAN 1034 S BRENTWOOD BLVD STE 854 ST LOUIS, MO 63117	U	HANLEY, THOMAS P ST. LOUIS UNIVERSITY HOSP. 1325 S. GRAND ST. LOUIS, MO 63104	OBG
GOODMAN, NATHANIEL #9 SCARSDALE LANE ST LOUIS, MO 63117	FP	GURSAHANI, PUSHPA 7943 81G BEND BLVD. ST. LOUIS, MO 63119	PD	HANNA, FAYEZ A 3394 MC KELVEY BRIDGETON, MO 63044	FP
GORDON, JAMES M 11155 DUNN RD ST LOUIS, MO 63136	OPH	GUZE, SAM L B 4940 AUDUBON AVE ST LOUIS, MO 63110	P	HANSEL, FRENCH K 515 TIMBERWYCK ST LOUIS, MO 63131	A
GORLA, WAYNE O 27 HARNEYWOLD ST LOUIS, MO 63136	IM	HOECKER, JAY L 3535 S. JEFFERSON ST. LOUIS, MO 63118	PD	HANSER, THEODORE H 3555 SUNSET OFFICE DR ST LOUIS, MO 63127	GS
GOULD, RONALD J 1035 BELLEVUE AVE. RICHMOND HTS., MO 63017	GE	HABERT, EDWARD R 10010 KENNERLY ST LOUIS, MO 63128	R	HANSON, PAULL R 1111 WOODS MILL RD 8ALLWIN, MO 63011	AM
GRADY, RONALD K 224 S. WOODS MILL RD. #370 CHESTERFIELD, MO 63017	CD	HADDOCK, JAMES N 777 S NEW BALLAS RD ST LOUIS, MO 63141	P	HANTMAN, STEPHEN L 1125 GRAHAM RD FLORISSANT, MO 63031	IM
GRAFF, RALPH J P O BOX 14109 ST LOUIS, MO 63177	GS	HAFFNER, HEINZ E 3 LINDWORTH ST LOUIS, MO 63124	GS	HANTZ, OSCAR 1125 GRAHAM RD FLORISSANT, MO 63031	OTO
GRAGNANI, JOHN A 615 S. NEW BALLAS RD. ST. LOUIS, MO 63141	PM	HAGAN, DANL J 621 S NEW BALLAS RD ST LOUIS, MO 63141	R	HARDIN, WM B 2821 N BALLAS RD STE 12 ST LOUIS, MO 63131	N
GRANETO, JOS A 5521 S BROADWAY ST LOUIS, MO 63111	FP	HAGEBUSCH, OMER E 15201 OLIVE ST RD APT 3 CHESTERFIELD, MO 63017	PTH	HARDY, DAVID A 911 S BRENTWOOD BLVD ST LOUIS, MO 63105	U
GRANT, JOHN M 114 N TAYLOR AVE ST LOUIS, MO 63108	IM	HAGEMANN, PAUL O 224 S. WOODS MILL RD. CHESTERFIELD, MO 63017	IM	HARDY, GUERDAN 35 N CENTRAL AVE CLAYTON, MO 63105	OTO
GRANT, NEVILLE 114 N TAYLOR ST LOUIS, MO 63108	IM	HAGEN, DUANE Q 621 S NEW BALLAS RD ST LOUIS, MO 63141	P	HARDY, PATRICK J 1125 GRAHAM RD FLORISSANT, MO 63031	IM
GRANT, SAM L B 96 ABERDEEN PL ST LOUIS, MO 63105	IM	HAGEN, GARRETT A 1035 BELLEVUE RICHMOND HGHTS, MO 63117	IM	HARELL, ALEX 8 MEDIC CTR 1040 MASON ST LOUIS, MO 63141	ORS
GRAUL, WALTER P 12255 DE PAUL DR BRIDGETON, MO 63044	ORS	HAHN, YORAM 1325 S. GRAND ST. LOUIS, MO 63104	OB	HARFORD, CARL G WASH U SCH MED-INT MED- ST LOUIS, MO 63110	IM
GRAVISS, EDWARD R 1465 S. GRAND ST. LOUIS, MO 63104	R	HALFORD, RICHARD 1040 N MASON RD STE 109 ST LOUIS, MO 63141	PS	HARKINS, WM B 7 KINGSBURY PL ST LOUIS, MO 63112	OTO
GRAY, GARY J 911 S BRENTWOOD ST LOUIS, MO 63105	IM	HALL, EUGENE W 116A S FLORISSANT RD FERGUSON, MO 63135	FP	HARPER, FLEMING B 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	GS
GREBEL, CLEMENT B 16 HAMPTON VILLAGE ST LOUIS, MO 63109	IM	HALL, LEE A 3716 HULEN PARK PORT WORTH, TX 76109	OBG	HARRISON, LEE B 44 RIDGEMOOR DR CLAYTON, MO 63105	IM
GREEN, MORTON R 111 W. LINCOLN BELLEVILLE, IL 62221	OPH	HALL, PRESTON C 39 WOODCREST DR ST LOUIS, MO 63124	FP	HARRISON, RICHARD L 9705 WATSON RD CRESTWOOD, MO 63126	P
GREEN, WM R 7200 MANCHESTER ST LOUIS, MO 63143	FP	HALL, ROBT A 43 WASHINGTON TERR. ST LOUIS, MO 63112	FP	HARSHMAN, DAVID M SUITE 319 3535 S. JEFFERSON ST LOUIS, MO 63118	CD
GREENMAN, MARSHALL B 777 S NEW BALLAS RD ST LOUIS, MO 63141	PD	HALL, WM K P O BOX 661 ST CHARLES, MO 63301	D	HART, WILLIAM 660 SOUTH EUCLID ST LOUIS, MO 63110	OPH
GREGORY, JOHN G 1325 S GRAND ST LOUIS, MO 63104	U	HALLAZGO, SANTIAGO Y 11140 MANCHESTER RD ST LOUIS, MO 63122	FP	HART, WILLIAM G 6915 SUNLIGHT SAN ANTONIO, TX 78238	PS
GRESICK, ROBT J 11 COACH-N-FOUR ST LOUIS, MO 63131	PTH	HALLEY, R H 11155 DUNN RD STE 214 ST LOUIS, MO 63136	U	HARTMAN, PAUL T 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	P
GRIEGE, CHAS W 493 ST FRANCOIS FLORISSANT, MO 63031	CD	HALLINGER, EARL S 2209 KIPP COURT ST. LOUIS CO., MO 63136	D	HARTMAN, RICHARD A 4021 CONNECTICUT ST. LOUIS, MO 63116	OBG
GRIGGS, JAMES Y 1034 S. BRENTWOOD SUITE #776 ST LOUIS, MO 63117	GS	HALLORAN, MARK J 621 S NEW BALLAS RD STE ST LOUIS, MO 63141	IM	HARTNETT, THOS D 11 S MERAMEC ST LOUIS, MO 63105	P
GRINDON, JOS B 1035 BELLEVUE AVE RICHMOND HEIGHT, MO 63117	D	HALVERSON, JOHN D 4960 AUDUBON ST LOUIS, MO 63110	GS	HARTSTEIN, JACK 8631 DELMAR BLVD ST LOUIS, MO 63124	OPH
GRONEMEYER, PAMELLA S JEWISH HOSP. PATH DEPT. 216 S. KINGSHIGHWAY ST. LOUIS, MO 63110	PTH	HAMILTON, CALDWELL K 11745 OLIVE ST RD CREVE COEUR, MO 63141	PD	HARTWIG, JOHN A 12541 POSTGROVE DR ST LOUIS, MO 63141	FP
GRUBB, ROBT L BARNES HOSP NEUROSURGER ST LOUIS, MO 63110	NS	HAMILTON, EUGENE G BELLEVUE BLDG 1035 BELLEVUE ST LOUIS, MO 63117	OBG	HARWELL, JAMES L 35 N CENTRAL ST LOUIS, MO 63105	PD
GRUNDMANN, WM H 141 N MERAMEC ST LOUIS, MO 63105	ORS	HAMILTON, JOHN A 1524 RENDERER DR ST LOUIS, MO 63122	OBG	HASENMUELLER, JAMES J 10004 KENNERLY RD SUITE 110 ST LOUIS, MO 63128	GS
GUILLEN, DIOSDADA T 2601 N WHITTIER ST LOUIS, MO 63113	PD	HAMILTON, THOMAS R 2205 E 5TH ST DULUTH, MN 55812	ID	HATFALVI, BELA I 15 MIDDLESEX DR ST LOUIS, MO 63144	AN
GULICK, C R 1034 S BRENTWOOD ST LOUIS, MO 63117	OBG	HAMILTON, WILLIAM P 615 S NEW BALLAS ROAD ST LOUIS, MO 63141	CD	HAWATMEH, IBRAHIM S 1325 S GRAND ST LOUIS, MO 63104	U
GULICK, CHARLES R 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	OBG	HAMMOND, D W 12166 BIG BEND RD ST LOUIS, MO 63122	ORS	HAWK, BRAY O 16 HAMPTON VILLAGE ST LOUIS, MO 63109	GS
GUMMELS, BELMONT B 718 FLORENCE AVE ST LOUIS, MO 63119	FP	HAMMOND, DAVID T 114 N TAYLOR AVENUE ST LOUIS, MO 63108	CD	HAWK, THOMAS M 6500 CHIPPEWA ST. LOUIS, MO 63109	ORS
GUNAWARDHANA, H P 1740 EDMAR LANE ST. LOUIS, MO 63138	P	HAMPTON, STANLEY F 6744 CLAYTON ROAD ST LOUIS, MO 63117	A	HAWKER, WM D 77 WILLMORE RD ST LOUIS, MO 63109	OBG
GUNN, WALTER T 4617 DAHILA AVE ST LOUIS, MO 63116	FP	HANAWAY, JOS BARNES HOSPITAL PLAZA ST LOUIS, MO 63110	N	HAWKINS, GEO L 504 OAKWOOD ST LOUIS, MO 63119	NS
GUPTA, JITENDRA K 1040 N MASON RD STE 107 ST LOUIS, MO 63141	IM	HANES, LILY A 615 SOUTH NEW BALLAS RO ST LOUIS, MO 63141	TR	HAYEK, WESLEY E 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	GS
GUPTA, NARAYAN C 6331 DEVONSHIRE ST LOUIS, MO 63109	FP	HANKIN, NORMAN M 4233 SULPHUR AVE ST LOUIS, MO 63109	PD	HAYNES, JAMES W 135 W ADAMS KIRKWOOD, MO 63122	PTH
				HAZAN, JOSEPH 2428 WOODSON ST LOUIS, MO 63114	OBG

HEADRICK, JOHN A 11133 DUNN RD ST LDUIS, MO 63136	IM	HOFFMAN, WILLIAM F 12255 DE PAUL DR. SUITE 830	N	HUFFAKER, WILLIAM H 1245 GRAHAM RO. FLORISSANT, MO 63031	PS
HEGDE, KORG V 3915 WATSON RD ST LOUIS, MO 63109	IM	BRIDGETN, MD 63044 HOFFMANN, AUGUSTIN D 6222 DELDR	IM	HUGGINS, ALBERT M 6651 CHIPPEWA ST ST LOUIS, MO 63109	IM
HEINS, JAMES N 631 E MONRDE ST LDUIS, MO 63122	IM	ST LOUIS, MO 63109 HDDFMANN, RDNALD E 12255 DE PAUL OR	ORS	HUGHES, CHAS P WASHINGTON UNIV DEPT-NE ST LOUIS, MO 63130	N
HELBING, EDWARD J 250 ALAMEDA #105 SANTA FE, NM 87501	OS	BRIDGETN, MO 63044 HOFSTATTER, LEDPOL 768 GLEN VISTA DR	N	HUGHES, RDBT G 11745 OLIVE BLVD ST LOUIS, MO 63141	DM
HELLMAN, ROBERT 4989 BARNES HOSPITAL PLAZA OEPT. OF ANTHES. ST. LOUIS, MO 63110	AN	ST LOUIS, MO 63122 HOGAN, CORNELIUS E 3654 S GRAND BLVO	IM	HULBERT, BERNARD 8112 DELMAR BLVO ST LOUIS, MO 63130	IM
HELLWEG, RAYMONO W 3220 PARKER RO FLORISSANT, MO 63033	PO	ST LOUIS, MO 63118 HOGAN, JOHN R 67 BERRY PARK RO	IM	HUMMEL, ANTON J 5203 CHIPPEWA ST ST LOUIS, MO 63109	OPH
HENDIN, AARON 3917 BRANNON ST LOUIS, MO 63109	IM	ST LOUIS, MO 63122 HOGAN, PATRICK A 1034 S BRENTWOOD	N	HUMMEL, WM C 1924 MUIR WOODS ST LOUIS, MO 63131	R
HENSCHER, EUGENE V 55 BROADVIEW DR ST LOUIS, MO 63105	IM	ST LOUIS, MO 63117 HOGAN, PATRICK C 10004 KENNERLY RO	OBG	HUNLETH, FRANK E 12615 OLD TESSON RO. ST LOUIS, MO 63128	OBG
HENSELMEIER, OALE M 649 S. NEW BALLAS RO. ST. LOUIS, MO 63141	GP	ST LOUIS, MO 63128 HOLBROOK, CHAS K 11655 W FLORISSANT	OM	HURO, ROBERT N THE BILLINGS CLINIC P. O. BOX 2555	GS
HER, KYU S 624 HAVERFORO RO ST LOUIS, MO 63124	PO	FLORISSANT, MO 63033 HOLBER, BARRETT K 777 SO NEW BALLAS RD	ORS	BILLINGS, MT 59103 HURLEY, JOSEPH J 615 S NEW BALLAS RD	GS
HERJANIC, MARIJAN 1420 GRATAN ST LOUIS, MO 63104	P	ST LOUIS, MO 63141 HOLEMON, R E 2821 N BALLAS RO	P	615 S NEW BALLAS RD ST LOUIS, MO 63141 HUTCHINSON, JAMES H	IM
HERMAN, MORRIS 3555 SUNSET OFFICE DR ST LOUIS, MO 63127	GS	ST LOUIS, MO 63131 HOLLO, VENCEL W 911 SOUTH BRENTWOOD	GS	114 N TAYLOR AVE ST LOUIS, MO 63108 HUTCHINSON, WILLIAM	DR
HERNANDEZ, SALVAOOR R 6500 CHIPPEWA AVE ST LOUIS, MO 63109	ORS	ST LOUIS, MO 63105 HOLLOCHER, RICHARD J 777 S NEW BALLAS RD	ORS	2821 N BALLAS RD ST LOUIS, MO 63131 HYMAN, ANNA	P
HERSHEY, FALLS B 621 S NEW BALLAS RO ST LOUIS, MO 63141	GS	CREVE COEUR, MO 63141 HOLLOMAN, WALTER G 11155 OUNN RD.	OR	314 N. BROAOWAY #940 ST LOUIS, MO 63102	AN
HERTEL, RONALO C 1034 S BRENTWOOD BLVO ST LOUIS, MO 63105	ORS	SUITE 203 ST. LOUIS, MO 63136 HOLSCHER, EDWARD C	ORS	1325 S GRANO ST LOUIS, MO 63104 INMAN, MAX M	IM
HERZOG, GODOPREOO M 1125 GRAHAM RO FLORISSANT, MO 63031	OBG	234 W JACKSON RO WEBSTER GROVES, MO 63119 HOLT, EARL P	ORS	3915 WATSON RO ST LOUIS, MO 63109 IRVIN, WM M	P
HESKER, ALBERT E 2821 N BALLAS RD STE C- ST LOUIS, MO 63131	R	5505 OELMAR BLVO ST LOUIS, MO 63112 HOLT, WILLIAM J	ORS	1035 BELLEVUE STE 202 ST LOUIS, MO 63117 ISHIDA, YASUO	OBG
HEUSLER, ANTON F 12255 DEPAUL ORIVE SUITE 330 BRIOGETON, MO 63044	P	7137 CAMBRIDGE ST LOUIS, MO 63130 HOLT, WM E	P	6744 CLAYTON RD ST LOUIS, MO 63117 ISLAM, MOHAMMED	GS
HEUTEL, LEE B 7200 MANCHESTER ST LOUIS, MO 63143	OM	4524 FOREST PARK BLVD ST LOUIS, MO 63108 HOLTMANN, BARBEL	PS	R R #5 BOX 286 HILLSBORO ROAD HIGH RIDGE, MO 63049	OPH
HIATT, BARRY A 889 S. BRENTWOOD SUITE 204 ST LOUIS, MO 63105	P	4960 AUDUBON ST LOUIS, MO 63110 HOLTZ, ALAN S	GS	ISSERMAN, MICHAEL J 456 NORTH NEW BALLAS RO. ST LOUIS, MO 63141	IM
HIATT, H C 7937 BIG BEND BLVO. ST LOUIS, MO 63119	IM	12166 BIG BENO RO KIRKWOOD, MO 63122 HOLTZ, SUMNER	OR	ITTNER, GEO W 5505 DELMAR SUITE 310 ST LOUIS, MO 63112	AN
HICKEY, JAMES L 621 S NEW BALLAS RD ST LOUIS, MO 63141	OBG	5535 OELMAR ST LOUIS, MO 63112 HOOKERMAN, BRUCE J	D	IWANE, AKIRA 4989 BARNES HOSP PL ST LOUIS, MO 63110	FP
HICKS, ROBT S 777 S NEW BALLAS RD STE ST LOUIS, MO 63141	P	12255 OE PAUL DR BRIDGETON, MO 63044 HOOVER, BERNARO L	IM	1040 N MASON RO ST LOUIS, MO 63141 JABLONSKI, RAYMONO C	R
HIGGINS, PHILIP C 1 CLAYCHESTER ST LOUIS, MO 63131	OBG	3915 WATSON RO ST LOUIS, MO 63109 HORAN, DAVID W	OTO	3RD & 1ST CAPITOL ST CHARLES, MO 63301 JACOB, KARL A	NS
HIGHTOWER, HARRY G 4524 FOREST PARK ST LOUIS, MO 63108	P	4949 BARNES HOSP. PLAZA ST. LOUIS, MO 63122 HORENSTEIN, SIMON	N	621 S NEW BALLAS RD ST LOUIS, MO 63141 JACOBS, CHAS C	OTO
HILBERT, PAUL H 2905 CHEROKEE ST ST LOUIS, MO 63118	FP	1221 S GRANO BLVD DEPT ST LOUIS, MO 63104 HORNER, JOHN L	IM	43 MUIRFIELD LN ST LOUIS, MO 63141 JACOBS, FREDERICK A	PD
HILDRETH, HOWARO R 15022 CLAYMOOR CT CHESTERFIELD, MO 63017	OPH	615 GARLAND PL ST LOUIS, MO 63122 HORWITZ, IRWIN B	ORS	10929 ABBOTT AVE SUN CITY, AZ 85351 JACOBS, JOHN R	OTO
HILL, XACADENE A 4067 DR MARTIN LUTHER KING ST LOUIS, MO 63113	FP	456 N NEW BALLAS SUITE 369 ST LOUIS, MO 63141	IM	980 CHESTNUT RIDGE RO MANCHESTER, MO 63011 JAIN, SAVITRI G	IM
HILLMAN, RICHARO E P. O. BOX 14871 ST LOUIS, MO 63178	PD	300 S GRAND ST LOUIS, MO 63103 HOWE, LOUIS F	FP	533 COUCH AVE. ST LOUIS, MO 63122 JAIN, SUMER C	AN
HIRONIMUS, JOHN E 6651 CHIPPEWA ST STE 20 ST LOUIS, MO 63109	O	1136 RIDGELYNN ST LOUIS, MO 63124 HOY, EDWARD J	OPH	1868 BEAVER RIOGE CT. CHESTERFIELD, MO 63017 JANNEY, JAMES G	IM
HIRSCH, JOHN D 216 S KINGSHIGHWAY ST LOUIS, MO 63110	GS	3655 VISTA ST. LOUIS, MO 63122 HSU, CHING F	IM	950 FRANCIS PL CLAYTON, MO 63105 JAROSEWYCZ, DEMETRIUS	P
HOBBS, JOHN E WOOCREST DR ST LDUIS, MO 63124	OBG	1704 PARIS OR GODFREY, IL 62035 HUANG, SHI H	NS	1910 W. OELMAR GODFREY, IL 62035 JARVIS, CATHY C	IM
HOEHN, JOHN P 12255 OE PAUL OR SUITE BRIOGETON, MO 63044	GS	12 RAMSGATE DR ST LOUIS, MO 63132 HUCK, FRANK F	GP	15951 THROWBRIE RD CHESTERFIELD, MO 63017 JATALA, IJAZ A	FP
HOFER, JEFFREY S 645 S. NEW BALLAS RD APT. 3-B ST. LOUIS, MO 63141	IM	P. O. BOX 1386 SAFFORO, AZ 85546 HUCK, RICHARO F	IM	819 LOCUST ST LOUIS, MO 63101 JAUOON, JOS C	PD
HOFFMAN, ROBERT J 11115 NEW HALLS FERRY FLORISSANT, MO 63033	PD	2821 N BALLAS ST LOUIS, MO 63131 HUDGENS, RICHARO W	P	55 S GORE ST LOUIS, MO 63119 JEAN, J T	IM
		777 S NEW BALLAS RO-STE ST LOUIS, MO 63141		4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	

JEDD, JAMES J 621 S NEW BALLAS ST LOUIS, MO 63141	AN	JULIEN, RENE 7401 STATE EAST ST LOUIS, IL 62203	GS	KELLY, JOHN J 114 N TAYLOR ST LOUIS, MO 63108	IM
JENKINS, JAMES J 216 SO KINGSHIGHWAY ST LOUIS, MO 63110	AN	KABIR, MOHAMMED A 10000 HIGHWAY 366 ST LOUIS, MO 63126	P	KELLY, R E 819 LOCUST ST ST LOUIS, MO 63101	OM
JENNY, ARTHUR R 344 JEFFERSON RD ST LOUIS, MO 63119	NS	KAHN, LAWRENCE I 4566 SCOTT AVE ST LOUIS, MO 63110	PD	KELTNER, RAYMOND M 1325 S GRAND ST LOUIS, MO 63104	GS
JENSEN, JOSHUA E 11155 DUNN RD STE 208 ST LOUIS, MO 63136	GS	KAIRUZ, BARTOLOME C 10004 KENNERLY RD ST LOUIS, MO 63128	FP	KENDIG, JOHN H 5505 DELMAR BLVD-RM 509 ST LOUIS, MO 63112	NS
JENSEN, JOSHUA E II CHRISTIAN HOSPITAL NO 11155 DUNN RD ST LOUIS, MO 63136	GS	KAISER, GEO C 1325 S GRAND BLVD ST LOUIS, MO 63104	GS	KENDIS, JOS B 777 S NEW BALLAS RD ST LOUIS, MO 63141	IM
JICK, SIDNEY 10287 CLAYTON RD ST LOUIS, MO 63124	CD	KAMAKAS, NICHOLAS C 1245 GRAHAM RD FLORISSANT, MO 63031	PD	KENNEY, JOHN D 12615 OLD TESSON ROAD ST LOUIS, MO 63128	ORS
JOFFE, WM S 211 N MERAMEC AVE CLAYTON, MO 63105	OPH	KAMENETZKY, STEPHEN A 4910 FOREST PARK SUITE 300 ST LOUIS, MO 63108	OPH	KENNINGTON, L J 914 PARKFIELD TERR BALLWINS, MO 63011	FP
JOFTUS, MORRIS 522 N. NEW BALLAS SUITE 280 ST LOUIS, MO 63141	IM	KAMINSKI, DONALD L 1325 S GRAND BLVD ST LOUIS, MO 63104	GS	KESSEL, JAMES W 2 JACKLYNN CT ST LOUIS, MO 63132	OBS
JOHNSON, CHAS J 1035 BELLEVUE ST LOUIS, MO 63117	PS	KAMINSKY, WATSON W 1212 S GRAND BLVD ST LOUIS, MO 63117	GS	KESSLER, SHELDON 10910 RONDELLAY DR. ST. LOUIS, MO 63141	PD
JOHNSON, FRANK E 1325 S. GRAND BLVD. ST. LOUIS, MO 63104	GS	KANG, CHANG H 3616 S. BROADWAY ST. LOUIS, MO 63118	GP	KEYES, E L 900 S HANLEY RD ST LOUIS, MO 63105	GS
JOHNSON, HENRY G 1402 SO. GRAND ST. LOUIS, MO 63110	OBS	KANG, JUAN ALLEN MEDICAL LABORATOR TOWN & COUNTRY MEDIC ST LOUIS, MO 63131	PTH	KHAN, ABDUL G JEFFERSON COUNTY MED AR ROUTE 1-SUITE 6 ARNOLD, MO 63010	PD
JOHNSON, JOHNNY E JR 4424 XENIA ST. DENVER, CO 80237	OBS	KANNegiesser, HARTMUT 300 S GRAND ST LOUIS, MO 63103	IM	KHAN, ABDUL R 9730 E WATSON RD ST LOUIS, MO 63126	P
JOHNSON, MICHAEL K 2827 LAWTON PROMANADE ST. LOUIS, MO 63103	OBS	KANTOR, OWEN 1034 SO BRENTWOOD ST LOUIS, MO 63117	IM	KHAN, ALTAF A 12166 BIG BEND BLVD ST LOUIS, MO 63122	GE
JOHNSON, MITCHELL D 40 N FLORISSANT RD FERGUSON, MO 63135	GS	KAO, MING-SHAN 4911 BARNES HOSP PLAZA ST LOUIS, MO 63110	IM	KHODADOUST, KAVOUS 1606 GRATTAN ST LOUIS, MO 63104	PTH
JOHNSON, ROY 15201 OLIVE BLVD. APT. 417 CHESTERFIELD, MO 63017	FP	KAPLAN, ALEX H 4524 FOREST PARK BLVD ST LOUIS, MO 63108	P	KHOLEIF, ALI 17 SCHWARTZ DR. ATTUMA, IA 52501	AN
JOHNSON, TOM A 615 SO NEW BALLAS RD ST LOUIS, MO 63141	FP	KAPPESSER, NETAJEAN G 55 FAIR OAKS DR ST LOUIS, MO 63124	FP	KIENZLE, EDWARD P. O. BOX 356 BONNE TERRE, MO 63628	FP
JOHNSTON, GLEN P QUEENY TOWER BLDG STE 5 ST LOUIS, MO 63110	OPH	KAPPESSER, ROLAND C 55 FAIR OAKS ST LOUIS, MO 63124	AN	KILKER, DONALD E 7520 NATURAL BRIDGE RD NORMANDY, MO 63121	FP
JOHNSTONE, JOHN T 206 W ARGONIE KIRKWOOD, MO 63122	IM	KARANDJEFF, APOSTLE D 1035 BELLEVUE AVE RM 31 ST LOUIS, MO 63117	OTO	KILO, CHAS 777 S NEW BALLAS RD ST LOUIS, MO 63141	IM
JONES, ANDREW B RT 1 SODDY, TN 37379	N	KARDESCH, MILTON 9293 WATSON RD ST LOUIS, MO 63126	IM	KIM, STANLEY W 777 S NEW BALLAS ST LOUIS, MO 63141	R
JONES, DOROTHY J 4566 SCOTT AVE ST LOUIS, MO 63110	PD	KARL, MICHAEL M 4652 MARYLAND AVE ST LOUIS, MO 63108	IM	KIM, WILLIAM W 1325 S GRAND BLVD ST LOUIS, MO 63104	AN
JONES, GREY P. O. BOX 222 BLAWENBURG, NJ 08504	OBS	KARR, ROBERT W 7049 MARYLAND ST. LOUIS, MO 63130	IM	KIMELMAN, NATHAN 6744 CLAYTON RD ST LOUIS, MO 63117	IM
JONES, JAMES D BARNES HOSPITAL PLAZA ST LOUIS, MO 63110	AN	KARSH, ROBT S 2428 WOODSON RD ST LOUIS, MO 63114	IM	KING, EUSTACE E 111 CHURCH ST FERGUSON, MO 63135	FP
JONES, JAMES H 1035 BELLEVUE AVE ST LOUIS, MO 63117	OPH	KASKIE, CLIFFORD R 621 S NEW BALLAS RD ST LOUIS, MO 63141	OBS	KING, FRANCIS C 11040 MANCHESTER RD ST LOUIS, MO 63122	FP
JONES, OTEY S 2010 LONGFELLOW ST LOUIS, MO 63104	FP	KASS, MICHAEL A 660 S EUCLID ST LOUIS, MO 63110	OPH	KING, JAMES P 4211 BAYLESS RD APPTON, MO 63123	PD
JONES, RICHARD A 777 S NEW BALLAS RD STE ST LOUIS, MO 63141	IM	KATSANTONIS, GEORGE 6651 CHIPPEWA ST LOUIS, MO 63109	OTO	KING, JOHN V JR 2995 CLARKSON RD CHESTERFIELD, MO 63017	PUD
JONES, SARA T 7347 MARYLAND ST LOUIS, MO 63130	AN	KAUFMAN, ROBT L 456 N NEW BALLAS RD SUITE 299 ST LOUIS, MO 63141	IM	KING, JOHN V SR 615 S NEW BALLAS RD ST LOUIS, MO 63131	FP
JONES, VICTOR T 950 FRANCIS PL ST LOUIS, MO 63105	R	KAUP, CHANDRA S 1125 GRAHAM RD FLORISSANT, MO 63031	IM	KING, MORRIS K 660 S EUCLID ST LOUIS, MO 63110	IM
JORDAN, WALTER R 112 REANIE DR CAMERON, TX 76520	FP	KAYES, JACK 211 N MERAMEC ST LOUIS, MO 63105	OPH	KINGSLAND, ROBERT C 6150 OAKLAND ST LOUIS, MO 63139	IM
JOSEPH, HAROLD J 828 CELLA RD ST LOUIS, MO 63124	IM	KAZA, RAMARAO 2601 N WHITTIER ST ST LOUIS, MO 63113	U	KINSELLA, EDWARD D 1035 BELLEVUE RICHMOND HEIGHT, MO 63117	GE
JOSEPH, MARY G 1755 SO. GRAND BLVD. ST. LOUIS, MO 63104	IM	KEATING, JAMES P ST LOUIS CHILDRENS HOSP P O BOX 14871 ST LOUIS, MO 63178	PD	KINSELLA, MARIA S 634 N. GRAND ST. LOUIS, MO 63103	IM
JOSLYN, HAROLD L 65 CLERMONT LANE ST LOUIS, MO 63124	GE	KEFFLER, KARL L 7306 WISE AVE ST LOUIS, MO 63117	FP	KINSELLA, PETER W 1035 BELLEVUE ST LOUIS, MO 63117	IM
JOST, CHAS A 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	FP	KEITHLY, DENNIS J 615 S. NEW BALLAS ST. LOUIS, MO 63141	FP	KINSELLA, RALPH A 6305 WESTMINSTER PL ST LOUIS, MO 63130	IM
JOTTE, RICHARD F 10300 ST CHARLES ROCK R ST ANN, MO 63074	FP	KELLER, LOUIS 950 FRANCIS PL RM 305 CLAYTON, MO 63105	D	KIPNIS, DAVID M 660 S EUCLID ST LOUIS, MO 63110	IM
JUDD, DONALD R 950 FRANCIS PL ST LOUIS, MO 63105	TS	KELLER, MAURICE J 9049 CLAYTON RD ST LOUIS, MO 63117	PD	KISSANE, JOHN M WASHINGTON U SCH MED ST LOUIS, MO 63110	PTH
JUDY, JOS D 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	IM	KELLETT, JOHN G 243 KENORA CT WEBSTER GROVES, MO 63119	FP	KISTLER, WALTER D SUITE 113 MED W BLDG 950 FRANCIS PLACE CLAYTON, MO 63105	IM
				KISTNER, WM F 621 S NEW BALLAS RD ST LOUIS, MO 63141	PUD

COMPONENT SOCIETY ROSTER

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KITCHEN, ALICE D 1221 SOUTH GRAND AVE. ST. LOUIS, MO 63104	P	KOWERT, EDWARD H 100 N EUCLID ST ST LOUIS, MO 63108	P	LADD, CHAS B P.O. BOX 14490 ST LOUIS, MO 63166	GP
KITOWSKI, THEODORE L 2040 YALE APT 9 MAPLEWOOD, MO 63143	R	KRAEGER, RUSSELL R 950 FRANCIS PL ST LOUIS, MO 63105	TS	LAIRD, JOHN M 1125 GRAHAM RD FLORISSANT, MO 63031	IM
LEIN, ADELBERT H 34 N RIDGEWOOD AVE ARCADIA, MI 49613	FP	KRAFTSCH, ROBERT E 1034 S BRENTWOOD ST LOUIS, MO 63117	IM	LAM, ERNESTO S 142 E LOCKWOOD ST LOUIS, MO 63119	GS
LEIN, ARNOLD G 14164 TRAILTOP DR CHESTERFIELD, MO 63017	FP	KRAIN, SAMUEL 141 NORTH MERAMEC ST LOUIS, MO 63105	R	LAMB, WANDA 456 N NEW BALLAS RD SUITE 282 ST LOUIS, MO 63141	P
LEIN, JACOB 777 SO NEW BALLAS RD ST. LOUIS, MO 63141	OBG	KRANER, JUSTIN F 8515 DELMAR ST LOUIS, MO 63124	OBG	LAMPING, J. O 2821 NORTH BALLAS ST. LOUIS, MO 63131	OBG
LEIN, SAUL J 456 N NEW BALLAS RD STE ST LOUIS, MO 63141	U	KRAUS, FREDERICK T ST JOHNS MERCY MED CTR- ST LOUIS, MO 63141	PTH	LAMPROS, WM P 1035 BELLEVUE ST LOUIS, MO 63117	OTO
LENK, CHAS L 5351 DELMAR AVE. C/O MASONIC HOME ST LOUIS, MO 63112	PTH	KRAUSE, GEO L 224 S. WOODS MILL RO. CHESTERFIELD, MO 63017	GS	LANDAU, WM M 640 S KINGSHIGHWAY ST LOUIS, MO 63110	N
LIEFOTH, JAMES A 10004 KENNERLY RD. ST. LOUIS, MO 63128	GS	KREISMAN, JEROLD J PC 522 N. NEW BALLAS RD. ST. LOUIS, MO 63141	P	LANOER, JERROLD J 5505 DELMAR SUITE 503 ST. LOUIS, MO 63112	IM
LIPPEL, BERNHART W 52 FAIR OAKS ST LOUIS, MO 63124	GS	KRETCHMAR, ALAN P 2821 N. BALLAS ST LOUIS, MO 63131	US	LANDER, ROBERT C 456 N NEW BALLAS SUITE 369 ST LOUIS, MO 63141	ORS
LOECKER, RICHARD J 12255 DEPAUL SUITE 160 BRIOGTON, MO 63044	GS	KREWET, FRANK A 1700 S SECOND ST ST LOUIS, MO 63177	IM	LANDRY, J H 2821 N BALLAS RD ST LOUIS, MO 63131	R
LOECKER, ROBT P 2821 N BALLAS RD ST LOUIS, MO 63131	OBG	KRISHNASAMY, BHARATH K 510 S. KINGSHIGHWAY ST. LOUIS, MO 63110	NM	LANOY, RICHARD 6150 OAKLAND ST LOUIS, MO 63139	PTH
LUZAK, THOMAS R 615 S NEW BALLAS ST LOUIS, MO 63141	OBG	KROEGER, GEO B 621 S NEW BALLAS RO ST LOUIS, MO 63141	OTO	LANE, CLINTON W 950 FRANCIS PL ST LOUIS, MO 63105	D
NEAL, ELLSWORTH 725 S SKINKER BLVO ST LOUIS, MO 63105	PO	KROJANKER, ROLF J 6651 CHIPPEWA ST LOUIS, MO 63109	P	LANE, OANL K 950 FRANCIS PL ST LOUIS, MO 63105	O
NIGHT, FRANKLIN P 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	GS	KROMER, CHAS J 9101 APPOMATTOX CT ST LOUIS, MO 63123	IM	LANG, JOHN J 507 FAIRWAYS CIRCLE ST LOUIS, MO 63141	R
NIGHT, WM A 1035 BELLEVUE AVE. ST LOUIS, MO 63117	GE	KRONEMER, NORTON S 12660 LAMPLIGHTER SQUAR ST LOUIS, MO 63128	PO	LANGAN, JAMES G 1231 ORCHARD VILLAGE LN #C MANCHESTER, MO 63011	IM
NLOCK, HENRY L 325 N. KIRKWOOD RD. KIRKWOOD, MO 63122	PD	KRUMMENACHER, THOMAS K OEPT OF OPHTHALMOLOGY 3660 VISTA ST. LOUIS, MO 63110	OPH	LANGE, ADOLPH C 6536 OEONSHIRE ST LOUIS, MO 63109	OPH
NOFF, HARRY L 211 N MERAMEC ST CLAYTON, MO 63105	OPH	KRUPIN, BARBARA A 660 S. EUCLID ST LOUIS, MO 63110	AN	LANGE, DAVID R 1617 ROGERS WHARF DR. CHESTERFIELD, MO 63017	ORS
SNOWLES, ROBT R 1034 SOUTH BRENTWOOD BL ST LOUIS, MO 63117	P	KRUPIN, THEODORE 660 S EUCLIO ST LOUIS, MO 63110	OPH	LANGENBACH, ALFREO M 10012 WOOLAWN ST LOUIS, MO 63124	FP
NOMLTON, NORMAN P 14 OAKLEIGH LN ST LOUIS, MO 63124	IM	KUCZER, ARNOLOO 4511 FOREST PARK ST LOUIS, MO 63108	OTO	LANIER, EARL W 2386 NORTH HWY 67 FLORISSANT, MO 63033	FP
ODNER, IRA J 456 N NEW BALLAS RO ST LOUIS, MO 63141	CRS	KUEBEL, RICHARD J 615 S. NEW BALLAS RO. ST. LOUIS, MO 63141	IM	LANSANGAN, ISAIAH P 13 MERAMEC HGTS SHOPPING CTR ARNOLO, MO 63010	IM
OEHLER, GEO A 777 S NEW BALLAS RD ST LOUIS, MO 63141	IM	KUEBRICH, THOS C 111 CHURCH ST FERGUSON, MO 63135	FP	LANSCH, W E 777 S NEW BALLAS RD ST LOUIS, MO 63141	ORS
OEHLER, ROBERT E 510 S KINGSHIGHWAY ST LOUIS, MO 63110	OR	KUHLMAN, RALPH F 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	IM	LAROECCA, FELIX F 18 WEST POINT LANE ST LOUIS, MO 63131	CHP
OEINIG, MARVIN I 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	OPH	KUHLMAN, ROBERT E 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	ORS	LARSEN, VIRGINIA L 5825 SOUTHWEST ST ST LOUIS, MO 63139	PD
OEINER, KENNETH A 2821 N BALLAS RD ST LOUIS, MO 63131	PO	KUHN, NOBUKO O 6951 OELMAR BLVO ST LOUIS, MO 63130	IM	LARSON, PAUL U 3654 S GRANO BLVD ST LOUIS, MO 63118	IM
OEHLER, KATHRYN D. K. 4358 HUMBER CIR. ST. LOUIS, MO 63129	OB	KULAK, GARY 621 S NEW BALLAS ST LOUIS, MO 63141	P	LATTINVILLE, HENRY E 12255 OEL PAUL OR SUITE BRIOGTON, MO 63044	NS
OEHLER, LOUIS H 100 N EUCLIO AVE ST LOUIS, MO 63108	P	KUMAR, MOHAN V 3655 VISTA BETHESDA HOSPITAL ST. LOUIS, MO 63110	FP	LAU, LUIS 1467 REAUVILLE DR-WARSO ST LOUIS, MO 63122	P
OLKER, ALLAN E 660 S EUCLIO AVE ST LOUIS, MO 63110	OPH	KUNZ, HAROLO G 100 N EUCLIO ST LOUIS, MO 63108	R	LAUBER, JOS J 621 S NEW BALLAS RO ST LOUIS, MO 63141	FP
OLOONY, ROBT C 4910 FOREST PARK BLVD ST LOUIS, MO 63108	IM	KUTRYB, WALTER J 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	IM	LAUER, JOHN D 555 HIGH MEADOW RO ST LOUIS, MO 63131	R
ONZELMAN, JOHN A 7401 TEASDALE AVE UNIVERSITY CITY, MO 63130	GP	KUTTNER, MARIANNE 7247 DELMAR BLVD ST LOUIS, MO 63130	PO	LAUTER, STEVEN 777 S NEW BALLAS ST. LOUIS, MO 63141	IM
OPELSON, JEFFREY C 6000 W. FLORISSANT ST. LOUIS, MO 63136	GP	KWAN, VICENTE W 4 PARKWAY SHOPPING CENT POTOSI, MO 63664	IM	LAUX, FRANCE A 2821 NORTH NEW BALLAS ST LOUIS, MO 63131	PTH
OPMAN, ERCUMENT A BARNES HOSP ST LOUIS, MO 63110	AN	KYAW, MYO M 11155 OUNN RO ST LOUIS, MO 63136	R	LAWRENCE, GEO H 12303 DE PAUL OR BRIOGTON, MO 63044	N
ORENBLAT, PHILLIP E 10287 CLAYTON RO ST LOUIS, MO 63124	A	KYZER, OAVID O 4989 BARNES HOSPITAL PLAZA ST. LOUIS, MO 63110	ORS	LAWTON, JOHN T 522 NORTH NEW BALLAS RO ST LOUIS, MO 63141	IM
ORN, ROBT L 456 N NEW BALLAS ST LOUIS, MO 63141	PD	L'ECUYER, JEROME L 9313 MANCHESTER RD ST LOUIS, MO 63119	PD	LAYCOB, LELANO M 522 N NEW BALLAS ST. LOUIS, MO 63141	PD
OTNER, LAWRENCE M 10358 CHIMNEY ROCK ST LOUIS, MO 63141	IM	LA ORIERE, RAYMONO J 450 CHESTERFIELD CENTER CHESTERFIELD, MO 63017	PD	LE BLANC, LEO J 621 S NEW BALLAS RO ST LOUIS, MO 63141	CRS
OTNER, LAWRENCE M JR 270 BELLINGTON LANE ST. LOUIS, MO 63141	R	LACSON, LETICIA O 254 PENWOOD CT CHESTERFIELD, MO 63017	CHP	LEACH, WILFRED 3655 VISTA AVE ST LOUIS, MO 63110	OTO
OVAC, S R 777 S NEW BALLAS RO ST LOUIS, MO 63141	OBG	LACY, PAUL E WASHINGTON U SCH MED ST LOUIS, MO 63110	PTH		

LEARY, DANL J JR 2445 COPPER BEECH ST LOUIS, MO 63131	R	LINBERG, JOHN V 2821 N. BALLAS RD. SUITE 200 ST. LOUIS, MO 63131	OPH	LU, FANG T 12858 SDMERTON RIDGE DR ST LOUIS, MO 63141	AN
LEE, DUK S 1284B TOPPING MEADOWS DR. TOWN & COUNTRY, MD 63131	AN	LINDEMAN, CARL H 7101 WESTMORELAND ST LOUIS, MO 63130	FP	LUBDOWITZ, HERBERT 8515 DELMAR ST. LOUIS, MO 63124	IM
LEE, DWIGHT A BARNES HOSPITAL DEPT OF E.N.T. ST. LOUIS, MO 63110	OTO	LINDEMAN, JOHN F 615 SO. NEW BALLAS RD. ST. LOUIS, MO, 63141	IM	LUCIDO, JOSEPH L 6 BELLERIVE ACRES ST LOUIS, MO 63121	TS
LEE, FRANSISKA A ST. JOHN'S MERCY HOSP. 615 SO. NEW BALLAS RD. ST LOUIS, MO 63141	TR	LINDER, HOWARD E 3015 N BALLAS RD ST LOUIS, MO 63131	PUD	LUECHTEFELD, FRANK 12255 DE PAUL DR BRIDGETON, MO 63044	DRS
LEE, JOSEPH KING TAK 510 S. KINGSHIGHWAY ST. LOUIS, MO 63110	IM	LINK, ALEXANDER J 7215 MARYLAND ST LOUIS, MO 63130	DR	LUEDEDE, PHILIP S 4424 HAMPTON AVE ST LOUIS, MD 63109	DPH
LEE, KIL S 11155 DUNN RD ST LOUIS, MO 63136	DR	LINS, ROBT D 309 MANCHESTER RD MANCHESTER, MD 63011	PD	LUEHRS, ROBERT O 200 S. BRENTWOOD APT. 3F ST. LOUIS, MO 63105	CHP
LEE, YEW SOONG 50 ARUNDEL PLACE ST LOUIS, MO 63105	N	LIPSCHITZ, ERVIN 777 S NEW BALLAS RD ST LOUIS, MO 63141	P	LUGO, SAML 3125 LEMAY FERRY RD ST LOUIS, MO 63125	GS
LEIGHTNER, WM F 550 BEDFORD AVE ST LOUIS, MO 63130	IM	LIPSITZ, ELLIS S 4511 FOREST PARK ST LOUIS, MD 63108	IM	LUH, ANDREW M 4110 VON TALGE RD ST LOUIS, MD 63128	DRS
LEMING, BERT H 11714 CRAIGVIEW DR ST LOUIS, MO 63141	PTH	LISCHER, CARL E 8012 PERSHING AVE ST LOUIS, MD 63105	GS	LUM, JON T 9378 OLIVE BLVD STE 215 ST LOUIS, MO 63132	P
LEMLEY, JOHN S 1035 BELLEVUE ST. LOUIS, MD 63117	ONC	LISCHWE, DANIEL H 13227 DAMASK COURT ST. LOUIS, MO 63141	GP	LUND, HERLUF G 3654 S GRAND AVE ST LOUIS, MO 63118	
LENOBEL, MILTDN I 10358 CHIMNEY ROCK DR. APT. 24 ST LOUIS, MO 63141	ORS	LISS, JAY L 763 SOUTH NEW BALLAS RD ST LOUIS, MO 63141	P	LUND, ROBT H 1034 S BRENTWOOD ST LDUIS, MD 63117	GS
LENOBEL, ROBERT S 140 GAY AVE ST LOUIS, MD 63105	R	LISSNER, ARTHUR B 1245 GRAHAM RD FLDRISANT, MO 63031	PS	LUTHER, GEORGE A 12166 BIG BEND RD ST LOUIS, MO 63122	ORS
LEONHARDT, ERWIN M ST ANTHONYS MED OFFICE SUITE 335 ST LOUIS, MO 63128	IM	LITTLE, MONROE H 7830 BLACKBERRY AVE ST LDUIS, MO 63130	FP	LYMAN, EDWARD H 950 FRANCIS PL ST LOUIS, MO 63105	OTO
LEPLEY, CHARLES 29 CHAMINDALE ST LOUIS, MD 63141	GP	LITTMANN, LEWIS E 665 S SKINKER BLVD ST LOUIS, MO 63105	IM	LYNXWILER, CHESTER P 10005 DODGE DR FENTON, MO 63026	PDC
LERWICK, EVERETT R 2821 BALLAS RD N ST LOUIS, MO 63131	GS	LITZOW, PETER L 1325 SO GRAND BLVD. ST. LOUIS, MO 63119	R	LYSS, CARL A 456 N NEW BALLAS RD ST LOUIS, MO 63141	IM
LESLIE, CHAS H 1065 HAVERSHAM PL DES PERES, MD 63131	FP	LIVINGSTON, DON G 650 MANCHESTER RD BALLWIN, MD 63011	PD	LYSS, STANLEY B 456 N NEW BALLAS RD ST LOUIS, MO 63141	PD
LEVIN, MARVIN E 777 S NEW BALLAS RD ST LOUIS, MO 63141	IM	LLINAS, ALFREDO J 6150 DAKLAND AVE. ST. LOUIS, MO 63130	GS	LYTTLE, GARNET C 665 S SKINKER BLVD ST LDUIS, MO 63105	GS
LEVINE, LAURENCE A 4949 FOREST PARK ST LOUIS, MO 63108	OTO	LO PICCOLO, VINCENT J JR 2821 N BALLAS RD ST LOUIS, MO 63131	PD	MAC CAUGHELTY, THDMAS C 12764 SPRUCE POND ROAD ST LOUIS, MD 63131	AN
LEVINE, STEVEN M 33 PONE AVENUER BROOK HOUSE #B616 BROOKLINE, MA 02146	GS	LD PICCOLO, VINCENT J SR 1913 MARCONI AVE ST LOUIS, MD 63110	IM	MAC DONALD, RDBT R 621 S NEW BALLAS RD ST LDUIS, MO 63141	DR
LEVITT, JOS 8515 DELMAR BLVD ST LOUIS, MO 63124	IM	LOEB, VIRGIL 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	IM	MACDONALD, WM C 6744 CLAYTON RD ST LOUIS, MO 63117	GE
LEVITT, RDBT G 510 S KINGSHIGHWAY ST LDUIS, MO 63110	DR	LOEFFEL, ELLEN S 3654 SO GRAND ST LOUIS, MD 6311B	OBG	MACEREN, RDOLOFO L 1225 GRAHAM RD. FLORISSANT, MO 63031	AN
LEVY, JEROME F 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	GS	LOGIE, MACDONALD B 100 N EUCLID AVE ST LOUIS, MO 63108	R	MACHEK, OTAKAR 6744 CLAYTON RD ST LOUIS, MO 63117	PM
LEVY, MORTON A 522 N NEW BALLAS RD CREVE COEUR, MO 63141	IM	LOHR, RDBT W 236 CONWAY HILL RD ST LOUIS, MO 63141	R	MACLEOD, ANGUS 3555 SUNSET OFFICE DR ST LDUIS, MO 63127	IM
LEWIN, W H 906 OLIVE ST ST LOUIS, MO 63101	DPH	LOITMAN, BERNARD S 10 WASHINGTON TERR ST LOUIS, MO 63112	R	MACNISH, JAMES M 4919 FOREST PARK ST LOUIS, MD 6310B	U
LEWIS, JAMES E 1401 S GRAND BLVD GLENN ST LOUIS, MD 63104	GS	LONDE, ALAN M 456 N NEW BALLAS RD ST LDUIS, MO 63141	GS	MADDIPATI, SREDEDEZI 1325 SOUTH GRAND ST LOUIS, MO 63104	AN
LEWIS, ROBERT D 9187 ARROW DR. ST LOUIS, MO 63123	OPH	LONDE, SOL 2855 ROSCAMARE RD. BEL AIR, CA 90024	PD	MADJITEY, GEORGE 1231 SELKIRK LANE #B ST. LOUIS, MO 63125	OB
LIAO, KUN T 11636 ADMINISTRATION DR ST LOUIS, MO 63141	PTH	LONDON, STANLEY L 456 N NEW BALLAS RD ST LOUIS, MO 63141	GS	MADOC JDNES, HYWEL 4511 FFOREST PARK BLVD SUITE 311 ST LOUIS, MO 63108	TR
LICHTENSTEIN, JACK R 1402 SOUTH GRAND BLVD ST LOUIS, MO 63104	IM	LONGERGAN, WARREN M 4910 FOREST PARK AVE ST LOUIS, MO 63108	IM	MADRID, DOMINADOR D 2627 TELEGRAPH RD. ST LOUIS, MO 63125	GS
LIEB, FRANCIS K 621 S NEW BALLAS RD ST LOUIS, MO 63141	PD	LONG, FRANK B 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	OBG	MAGEE, WM E RALSTON-PURINA CO. 835 SOUTH 8TH. STREET ST LOUIS, MO 63102	IM
LIEBERMAN, DAVID M 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	IM	LONSWAY, MAURICE J 8025 DALE AVE ST LOUIS, MO 63117	PD	MAGINN, R R 911 S BRENTWOOD ST LOUIS, MO 63105	GS
LIEBHABER, HARVEY 8515 DELMAR ST LOUIS, MO 63124	IM	LORD, RICHARD E 12166 BIG BEND ST LOUIS, MO 63122	ORS	MAGNESS, GUY N 608 KINGSLAND AVE UNIVERSITY CITY, MO 63130	FP
LILLY, DOUGLAS R 621 S NEW BALLAS RD ST LOUIS, MO 63141	NM	LOTTESS, J O 6434 CHIPPEWA ST ST LOUIS, MO 63109	ORS	MAHADEVAN, JAMBUNATHAN 472 GABRIEL CT. ST. LOUIS, MO 63122	IM
LIM, IL T 197 SEABROOK DRIVE CHESTERFIELD, MO 63017	AN	LOVINGER, WARREN C JR 1136 S. SPRING ST. NEVADA, MO 64772	IM	MAHE, GEO A 911 S BRENTWOOD BLVD ST LOUIS, MO 63105	IM
LIMA, JOSE A 1325 S. GRAND ST. LOUIS, MO 63104	OTO	LOWENSTEIN, PAUL S 18 S KINGSHIGHWAY BLVD ST LOUIS, MO 63108	GS	MAHER, THOS F 621 S NEW BALLAS RD ST LOUIS, MO 63141	R
LIMPATARMONKOL, PIEMSAKDI 625 DOUGHTERTY VIEW CT DES PERES, MO 63131	OBG	LOWTHER, GERALD S 901 CLAYTON RD BALLWIN, MO 63011	PD	MAITZ, CARLOS A ST. JOHN'S MERCY MED. CTR. 615 SO NEW BALLAS ST. LOUIS, MO 63141	OBG

COMPONENT SOCIETY ROSTER

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MAJORS, PATRICK F 950 FRANCIS ST. LOUIS, MO 63105	IM	MASTERS, WM H 4910 FOREST PARK BLDG ST LOUIS, MO 63108	OBG	MCCLENNAN, BRUCE L 510 SOUTH KINGSHIGHWAY ST. LOUIS, MO 63110	DR
MAJIK, SARFAZ A 6651 CHIPPEWA SUITE 218 ST LOUIS, MO 63109	GE	MATHEW, MALEAKAL S 10695 BELLEFONTAINE RD ST LOUIS, MO 63137	CHP	MCKINNEY, WILLIAM D JR. 615 SOUTH NEW BALLAS RO. ST. LOUIS, MO 63141	FP
MALLYA, ASHOK R 5400 ARSENAL ST ST LOUIS, MO 63139	P	MATHEW, POYANIL M 1816 MANNINGTON CT. CHESTERFIELD, MO 63017	P	MCLAREN, ANN L 1755 S. GRAND BLVD. ST. LOUIS, MO 63104	FP
MALMBERG, VIRGIL L DEPT. OF PSYCHIATRY BARNES HOSP. ST. LOUIS, MO 63110	P	MATHEW, RUBY 224 S. WOODSMILL RD. CHESTERFIELD, MO 63017	OBG	MEADOR, JAMES R 10367 OXFORD HILL DRIVE ST LOUIS, MO 63141	GS
MALONEY, ROBT M 16 HAMPTON VILLAGE PLAZ ST LOUIS, MO 63109	U	MATTHEWS, HOMER B 3535 SO. JEFFERSON SUITE 210 ST. LOUIS, MO 63118	FP	MEADOWS, CHAS D 777 S NEW BALLAS RO ST LOUIS, MO 63141	OM
MALT, SHERWIN H 522 N NEW BALLAS RO ST LOUIS, MO 63141	GS	MATTHEWS, JOHN G 3707 WATSON RO ST LOUIS, MO 63109	IM	MEDLER, JOHN F 2821 N BALLAS RO ST LOUIS, MO 63131	OBG
MAMINTA, NAPOLEON S 2284 WHITBEY RD CHESTERFIELD, MO 63017	PTH	MAUGHS, SYDNEY B 1034 S BRENTWOOD BLVD S ST LOUIS, MO 63117	P	MEDLER, PAUL L 1034 SOUTH BRENTWOOD ST LOUIS, MO 63117	D
MANANSALA, ANTONIO Q 8112 WEST MUROOCK WICHITA, KS 67212	GP	MAX, PAUL F 950 FRANCIS PL CLAYTON, MO 63105	OBG	MEDRANO, CRESCENCIANO A P O BOX 364 PERRYVILLE, MO 63775	OBG
MARNES-MARTINEZ, JOSE 232 SOUTH WOODS MILL RD. CHESTERFIELD, MO 63017	PTH	MAXWELL, RICHARD W 4989 BARNES HOSPITAL PL ST LOUIS, MO 63110	IM	MEDRANO, LINA E 5471 MARTIN LUTHER KING ST LOUIS, MO 63112	IM
MANGELSDORF, THOMAS K 621 S. NEW BALLAS ST. LOUIS, MO 63141	P	MAYER, ROBT A 8631 DELMAR BLVO ST LOUIS, MO 63124	IM	MEHAN, DONALD J 1035 BELLEVUE ST LOUIS, MO 63117	U
MANION, MARIA E 522 N NEW BALLAS RD SUITE 382 ST LOUIS, MO 63141	CHP	MAYFIELD, WM R 621 S NEW BALLAS RD ST LOUIS, MO 63141	AN	MEHRA, RAVINDER B 10000 WATSON RO STE P CRESTWOOD, MO 63126	IM
MANION, PETER J 6405 MUROOCK AVE., ST LOUIS, MO 63109	PO	MAYUGA, EOGARDO G 10010 KENNERLY RO ST LOUIS, MO 63128	AN	MEHRA, S K 6651 CHIPPEWA SUITE 306 ST LOUIS, MO 63109	IM
MANLEY, CHAS B 449 SHERWOOD DR ST LOUIS, MO 63119	U	MC ADAM, CHAS R 7516 FLORISSANT RD ST LOUIS, MO 63121	FP	MEHRA, USHA 10000 HIGHWAY 366 CRESTWOOD, MO 63126	OBG
MANNIS, CHARLES I 522 N NEW BALLAS RO ST LOUIS, MO 63141	ORS	MC AFEE, CHESTER A 5505 OELMAR BLVD RM 300 ST LOUIS, MO 63112	GS	MEINBERG, WM H 7052 MARYLAND AVE ST LOUIS, MO 63130	OPH
MANSKE, PAUL R 12615 OLO TESSON FERRY RO ST LOUIS, MO 63128	ORS	MC ALISTER, WM H 510 S KINGSHIGHWAY ST LOUIS, MO 63110	R	MEINERS, PAUL N 12255 DE PAUL DR SUITE 240 BRIOGTON, MO 63044	GS
MANTENA, RAJU N 813 COURTIS ST. LOUIS, MO 63111	AN	MC CALL, EDWIN L 22 HILLTOP OR KIMBERLING CITY, MO 65686	US	MEINERS, THEODORE M 224 S. WOODS MILL RD. CHESTERFIELD, MO 63017	OBG
MARANAN, OIOSDADO L 4061 JEFFCO BLVO. SUITE #4 ARNOLD, MO 63010	EM	MC CATHY, JOHN M 1035 BELLEVUE AVE ST LOUIS, MO 63117	IM	MELICK, WM F 911 S BRENTWOOD #228 ST LOUIS, MO 63105	U
MARAVILLA, LEVY M 4211 BAYLESS AVE ST LOUIS, MO 63123	GP	MC CAUGHAN, JOHN M 4605 LINDELL BLVD ST LOUIS, MO 63108	GS	MELL, ROGER L 224 S. WOODS MILL ROAO SUITE 255 CHESTERFIELD, MO 63017	ORS
MARCHOSKY-KOGAN, JOSE A 1507 CERULEAN DR ST LOUIS, MO 63141	NS	MC CLINTOCK, MARTIN B 14382 WOODLAKE CHESTERFIELD, MO 63017	FP	MELSON, GLENN L 510 S KINGSHIGHWAY ST LOUIS, MO 63110	DR
MARCUS, MORRIS O 8631 DELMAR BLVO ST LOUIS, MO 63124	D	MC CLOSKEY, ROBT B 10004 KENNERLY SUITE 140 ST LOUIS, MO 63128	OTO	MELTZER, OAVID W 660 S. EUCLIO ST LOUIS, MO 63110	OPH
MARGOLIS, OAVID M 11155 DUNN RD. SUITE 105 ST LOUIS, MO 63136	GE	MC CLURE, DAVID N 2821 N BALLAS RD ST LOUIS, MO 63131	PD	MENDELSON, GEORGE 5505 DELMAR ST LOUIS, MO 63112	NS
MARGOLIS, RICHARD M 1125 GRAHAM RD FLORISSANT, MO 63031	PD	MC COOL, JAMES F 3915 WATSON RD ST LOUIS, MO 63109	IM	MENDELSON, ROBT S 522 NORTH NEW BALLAS ST LOUIS, MO 63141	IM
MARMOR, WM A 1233 GUELBRETH LN ST LOUIS, MO 63141	OTO	MC COOL, STANLEY VETERANS ADMINISTRATION JEFFERSON BARRACKS ST LOUIS, MO 63125	IM	MENDELSON, DAVID F 141 N MERAMEC AVE ST LOUIS, MO 63105	N
MARRS, DAVID B 4950 AUGUBON AVE. ST. LOUIS, MO 63110	D	MC CORCLE, MARCUS O 615 S. NEW BALLAS CREVE COEUR, MO 63141	OBG	MENDEZ, MANUEL 6424 SOUTHLAND AVE ST LOUIS, MO 63109	P
MARSH, JEFFREY L 500 S KINGSHIGHWAY ST LOUIS, MO 63110	PS	MC COWN, ALLAN H 9801 LOG CABIN CT ST LOUIS, MO 63124	R	MENDONSA, LAWRENCE E 9811 W FLORISSANT BLVD ST LOUIS, MO 63136	OBG
MARSHALL, JAY P II 1034 S. BRENTWOOD BLVD. ST. LOUIS, MO 63117	IM	MC GINNIS, WM F 224 SO. WOODS MILL RO SUITE 450 CHESTERFIELD, MO 63017	OBG	MENESES, ORLANOO G 11327 GRAVOIS ST LOUIS, MO 63126	FP
MARTEL, DOMINIQUE J 7344 PRINCETON AVE ST LOUIS, MO 63130	AN	MC GUIRE, BERNARD J 615 SOUTH NEW BALLAS RD. CREVE COEUR, MO 63141	IM	MERENDA, FRANK J 777 S. NEW BALLAS RD. CREVE COEUR, MO 63141	ORS
MARTIN, OANL J 500 NORTHWEST PLAZA ST ANN, MO 63074	OBG	MC KEE, OLIVER A 325 N KIRKWOOD RO KIRKWOOD, MO 63122	O	MERENOVA, SAM J 6651 CHIPPEWA ST LOUIS, MO 63109	R
MARTIN, OAVIO S 1383 WHITE ORCHARO ST LOUIS, MO 63141	R	MC KINNEY, JOE K 777 S NEW BALLAS RE-STE ST LOUIS, MO 63141	P	MERRIMS, THEODORE 8631 OELMAR BLVO ST LOUIS, MO 63124	OBG
MARTIN, FREDERICK W 325 N KIRKWOOD RO ST LOUIS, MO 63122	OBG	MC LAUGHLIN, KATHLEEN S 1824 TOPPING RO ST LOUIS, MO 63131	PTH	MERRITT, BURCH A 12937 TIMMOR CT ST LOUIS, MO 63131	PO
MARTIN, JOHN B 825 S. HANLEY #1N ST LOUIS, MO 63105	OBG	MC LEAN, ROYAL C 520 W JEWEL AVE KIRKWOOD, MO 63122	GP	MESTRES, HUGH M 12660 LAMPLIGHTER SQ ST LOUIS, MO 63128	PO
MARTINEZ, ARMANOO I 2601 NORTH WHITTIER ST LOUIS, MO 63113	ORS	MC MULLIN, FORBES A 12615 OLO TESSON ROAD ST LOUIS, MO 63128	ORS	METZ, CHAS O 6459 DEVONSHIRE AVE ST LOUIS, MO 63109	FP
MARTINEZ, EMMANUEL 224 MERAMEC STA RO VALLEY PARK, MO 63088	R	MC MURRAY, HERBERT C BOX 789 MANCHESTER, MO 63011	FP	MEYER, HARRY E 621 S. NEW BALLAS ST. LOUIS, MO 63141	P
MARTZ, JOHN C 325 N KIRKWOOD RO ST LOUIS, MO 63122	PO	MC NALLEY, MICHAEL 10733 BIG BENO ST LOUIS, MO 63122	OBG	MEYER, HERMAN M 6215 PERSHING AVE ST LOUIS, MO 63130	IM
MASSIE, EDWARD 9806 LITZSINGER ROAO ST LOUIS, MO 63124	CO	MC NAMARA, JOHN J 21 BERKSHIRE RICHMOND HEIGHT, MO 63117	R	MEYER, JAMES E USAF HOSPITAL WHITEMAN WHITEMAN, MO 65305	FP

MEYER, JAY 763 SOUTH NEW BALLAS RD ST LOUIS, MO 63141	P	MISCHNICK, CAROL R 1035 BELLEVUE ST. LOUIS, MO 63117	PS	MORRIN, KEVIN 5251 WESTMINSTER PL ST LOUIS, MO 63108	OBG
MEYER, JOHN S 216 S KINGSHIGHWAY ST. LOUIS, MO 63110	CLP	MISHKIN, MARVIN R 522 N NEW BALLAS RD ST LOUIS, MO 63141	ORS	MORRIS, ALAN H 522 N NEW BALLAS RD ST LOUIS, MO 63141	ORS
MEYER, MELVIN E 4424 HAMPTON ST ST LOUIS, MO 63109	OPH	MISKOVSKY, EMIL F RUSH HILL FARM SHEPARD RD	CD	MORRIS, HARVEY E 433 POWELL AVE ST LOUIS, MO 63135	FP
MEYER, WAYNE W 15 BALCON ESTATES DR CREVE COEUR, MO 63141	GS	MISSEY, WILBURN C 621 S NEW BALLAS RD ST LOUIS, MO 63141	IM	MORRIS, MARY E 2710 S GRAND APT 801 ST LOUIS, MO 63103	OBG
MEYERS, ELSIE E 6364 ALEXANDER DR CLAYTON, MO 63105	AN	MISTRY, TEHMTON S 35 N CENTRAL ST LOUIS, MO 63105	OBG	MORRISON, ARLEN E 224 SOUTH WOODS MILL RD. SUITE 370 CHESTERFIELD, MO 63017	IM
MEYERS, JOHN B 120 NORTH FORSYTH BLVD CLAYTON, MO 63105	IM	MITCHELL, EUGENE N 3737 NORTH KINGSHIGHWAY ST LOUIS, MO 63115	GS	MORTENSEN, FREDE 3555 SUNSET OFFICE DR ST LOUIS, MO 63127	IM
MEYERS, ROBT W 4524 FOREST PK BLVD ST LOUIS, MO 63108	P	MITHEN, FRANCIS A 3877 MARIETTA ST LOUIS, MO 63121	GS	MOSES, ROBT A 660 S EUCLID AVE ST LOUIS, MO 63110	OPH
MEZERA, RAYMOND A 7345 WHITEHAVEN ST LOUIS, MO 63123	CD	MODIN, JEFFREY J 11745 OLIVE ST. RD ST. LOUIS, MO 63141	CHN	MOSLEY, JULIAN C 3737 N KINGSHIGHWAY ST LOUIS, MO 63115	GS
MICHAEL, KENNETH D 3505 CAMINO DEL RIO SAN DIEGO, CA 92108	P	MOELLER, FRANK D 777 SO NEW BALLAS RD ST LOUIS, MO 63141	OBG	MOSQUERA, JAIME J 1245 GRAHAM ST FLORISSANT, MO 63031	OBG
MICHAEL, VERNON E SUITE 343-FRISCO BLDG. 906 OLIVE ST LOUIS, MO 63101	GS	MOHAPATRA, RAJ N 12561 AMERSHAM CT ST LOUIS, MO 63141	U	MOTZEL, ALBERT J 6238 WASHINGTON BLVD ST LOUIS, MO 63130	GS
MICHAELREE, JOHN F 9705 HIGHWAY 66 CRESTWOOD, MO 63126	FP	MOLDEN, C S 114 NO TAYLOR ST LOUIS, MO 63108	IM	MOWREY, WM O 7071 LINDELL BLVD. ST LOUIS, MO 63130	FP
MIDDLETON, JERRY N 777 S NEW BALLAS RD ST LOUIS, MO 63141	OBG	MOLDEN, CHAS A 7520 NATURAL BRIDGE RD ST LOUIS, MO 63121	FP	MUCHNICK, RICHARD L 3015 N. BALLAS RD. ST. LOUIS, MO 63131	IM
MIER, THOS M 1035 BELLEVUE ST LOUIS, MO 63117	OBG	MOLITOR, JEROME A 13427 LAND O WOODS CREVE COEUR, MO 63141	R	MUCKERMAN, RICHARD C II ST. JOHN'S MERCY MED. CTR. BALLAS & CONWAY RDS. ST. LOUIS, MO 63141	OBG
MIKHAIL, GIRGIS 1325 S. GRAND BLVD. ST. LOUIS, MO 63104	OB	MONAFO, WM W WASHINGTON UNIV. 4960 AUDUBON ST LOUIS, MO 63110	GS	MUCKERMAN, RICHARD I 621 S NEW BALLAS RD ST LOUIS, MO 63141	OBG
MIKOLAJCZAK, JAMES 10004 KENNERLY RD. SUITE 255 ST LOUIS, MO 63128	P	MONAT, SEYMOUR M 8631 DELMAR BLVD ST LOUIS, MO 63124	OBG	MUDD, J F 1325 S GRAND BLVD ST LOUIS, MO 63104	CD
MILDER, BARRY D 211 N MERAMEC AVE CLAYTON, MO 63105	OPH	MONSEES, BARBARA 478 W LOCKWOOD AVE. ST. LOUIS, MO 63119	PD	MUELHEIMS, GERHARD H 1515 LAFAYETTE AVE ST LOUIS, MO 63104	IM
MILDER, BENJ 10 TERRYHILL LANE ST LOUIS, MO 63131	OPH	MONTANI, CHAS 5147 DAGGETT AVE ST LOUIS, MO 63110	FP	MUELLER, CLARENCE E 522 N NEW BALLAS RD-STE ST LOUIS, MO 63141	IM
MILES, PAUL W 15 RIDGE CREEK RD ST LOUIS, MO 63141	OPH	MONTERUBIO, FRED R JR 1325 S. GRAND BLVD. ST. LOUIS, MO 63104	OBG	MUELLER, JOS A 3654 S GRAND BLVD ST LOUIS, MO 63118	FP
MILL, WM B 1325 SO. GRAND DEPT OF RADIATION, ONC. ST. LOUIS, MO 63104	TR	MONTES, ARTURO C 4585 WASHINGTON SUITE C-4 FLORISSANT, MO 63033	FP	MUELLER, MORRIS A 4917 RAVENSWOOD APT 111 SAN ANTONIO, TX 78227	IM
MILLANGUE, CONSOLACION P 8059 WATSON RD WEBSTER GROVES, MO 63119	IM	MONTES DE OCA, JULIO 950 FRANCIS PL CLAYTON, MO 63105	IM	MUELLER, ROBT 275 UNION BLVD ST LOUIS, MO 63108	GS
MILLANGUE, RAFAEL M 8059 WATSON RD WEBSTER GROVES, MO 63119	GS	MONTGOMERY, AUSTIN F 2821 NORTH BALLAS RD ST LOUIS, MO 63131	IM	MUELLER, ROBT J 16 HAMPTON VIL PLAZA ST LOUIS, MO 63109	P
MILLER, CHAS 12166 BIG BEND BLVD KIRKWOOD, MO 63122	IM	MOOLSINTONG, PORNCCHAI 447 TWIN CREEK RD. ST. LOUIS, MO 63141	R	MUELLER, WILBUR K 9645 BIG BEND BLVD BETHESDA DILWORTH ME ST LOUIS, MO 63122	R
MILLER, EDWARD J 522 N NEW BALLAS STE 34 ST LOUIS, MO 63141	IM	MOON, THOS R 12166 BIG BEND BLVD KIRKWOOD, MO 63122	N	MUHAMMUD, FAQUIR 11155 DUNN RD SUITE 213 ST LOUIS, MO 63136	IM
MILLER, GEOFFREY W 60 BERKSHIRE ST LOUIS, MO 63117	R	MOORE, ALVA 5142 RAYMOND AVE ST LOUIS, MO 63113	IM	MULLARKY, WILBUR A 10646 ST CHARLES ROCK R ST ANN, MO 63074	IM
MILLER, JAMES E ST LOUIS CHILDRENS HOSP ST LOUIS, MO 63110	OPH	MOORE, HARRY G 111 S MERAMEC SUITE 503 ST LOUIS, MO 63105	CHP	MULLINS, JOHN E 777 S NEW BALLAS RD ST LOUIS, MO 63141	IM
MILLER, JAMES R 99 TRENT DR ST LOUIS, MO 63124	PTH	MOORE, HARRY G 40 N. KINGSHIGHWAY ST LOUIS, MO 63108	FP	MUNSCH, ROBERT F 3660 VISTA AVE ST LOUIS, MO 63110	OP
MILLER, JULE P 4524 FOREST PARK BLVD ST LOUIS, MO 63108	P	MOORE, WALTER L 1034 S. BRENTWOOD ST. LOUIS, MO 63117	N	MURPHY, DANIEL J 653 S. NEW BALLAS RD. ST. LOUIS, MO 63141	IM
MILLER, NORMAN C 5006 THOLOZAN ST LOUIS, MO 63109	GP	MORA, ALVARO 4956 MARDEL AVE. ST. LOUIS, MO 63109	OBG	MURPHY, GEO E 4940 AUDUBON AVE ST LOUIS, MO 63110	P
MILLER, ROBT N ST JOHN'S MERCY MED CTR- ST LOUIS, MO 63141	AN	MORAN, CHRISTOPHER J 2821 N. BALLAS RD. ST. LOUIS, MO 63141	DR	MURPHY, JAMES P 911 S BRENTWOOD BLVD CLAYTON, MO 63105	CD
MILLER, WM V 4050 LINDELL BLVD ST LOUIS, MO 63108	PTH	MORAN, THOS M SUITE 203 889 S. BRENTWOOD ST LOUIS, MO 63105	P	MURPHY, JOHN C 141 N MERAMEC AVE CLAYTON, MO 63105	PH
MILSTEAD, KENNETH L 4817 DORSET AVE CHEVY CHASE, MD 20015	AN	MORGAN, HARRY C 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	ORS	MURPHY, WM A 510 S KINGSHIGHWAY ST LOUIS, MO 63110	DR
MILSTER, CLYDE R 906 OLIVE ST ST LOUIS, MO 63101	OPH	MORGAN, STEPHAN S 16 HAMPTON VILLAGE PLAZ ST LOUIS, MO 63109	OPH	MUSCHANY, NORMAN K 522 N NEW BALLAS RD ST LOUIS, MO 63141	OB
MINGS, WILLIAM W 3660 VISTA ST. LOUIS, MO 63110	OPH	MORGAN, WILLY J. C. 4601 STATE ST. EAST ST. LOUIS, IL 62205	U	MUSICH, THOMAS F 1931 SUBLETTE ST. LOUIS, MO 63110	GF
MINNIHAN, ROBT W 141 N. MERAMEC ST LOUIS, MO 63105	P	MORITZ, GERALD 1125 GRAHAM RD FLORISSANT, MO 63031	OTO	MYERS, GARY H METROPOLITAN NEUROLOGY, LTD. 224 S. WOODS MILL RD. CHESTERFIELD, MO 63017	N
MIRBAHA, MITCHELL M 4110 VON TALGE RD ST LOUIS, MO 63128	ORS	MORLEY, MARY A 1325 S. GRAND AVE. ST. LOUIS, MO 63104	OBG	MYERS, IVAN T 35 N CENTRAL AVE ST LOUIS, MO 63105	OF

COMPONENT SOCIETY ROSTER

NAHM, CHUNG C 3535 SOUTH JEFFERSON AV ST LOUIS, MO 63118	IM	NORDLICHT, SCOTT M SUITE 4104 QUEENY TOWER BARNES HOSPITAL PLAZA ST. LOUIS, MO 63110	IM	OHMOTO, MASAO 141 M MERAMEC ST STE 11 CLAYTON, MO 63105	IM
NAIDU, GONGUNTALA 27 A V A HOSP J B DIVISION ST LOUIS, MO 63125	IM	NORLAND, CHAS C 114 N TAYLOR ST LOUIS, MO 63108	IM	OJASCASTRO, ALEJANDRO C 9465 CROOKED CREEK TRAI ST LOUIS, MO 63127	GP
NAIR, K 608 HICKORY KNOLL CT BALLWIN, MO 63011	IM	NORONHA, REYNOLD F 1325 S GRAND ST LOUIS, MO 63104	U	OKAFOR, NATH C 1515 LAFAYETTE ST. LOUIS, MO 63104	OBG
NAKADA, JAMES R 2 HUNTLEIGH OWNNS ST LOUIS, MO 63131	IM	NOUHAN, JOS G 621 S NEW BALLAS STE 56 CREVE COEUR, MO 63141	OBG	OKUN, EDWARD 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	OPH
NALAGAN, MARCOS C 9730 EAST WATSON RD. ST LOUIS, MO 63126	IM	NOURI, HASSAN 12622 ALSWELL LANE ST LOUIS, MO 63128	OBG	OLANDER, DAVID S 455 N NEW BALLAS RD ST LOUIS, MO 63141	PDC
NARAYAN, OILIP L 5505 DELMAR SUITE 310 ST LOUIS, MO 63112	GE	NOVACK, MARK A 224 S. WOODS MILL RD. CHESTERFIELD, MO 63017	IM	OLLINGER, HENRY G 4310 FOREST PARK ST LOUIS, MO 63110	PS
NARKIEWICZ, LAWRENCE S 12166 BIG BEND ST LOUIS, MO 63122	IM	NUETZEL, JOHN A 911 S BRENTWOOD BLVD CLAYTON, MO 63105	IM	OLSON, ROBT E 1402 S GRAND BLVD ST LOUIS, MO 63104	IM
NARYKA, JOSEPH J 911 S BRENTWOOD #228 ST LOUIS, MO 63105	U	NUNEZ, MARIA A 2821 BALLAS RO STE 135 ST LOUIS, MO 63131	PO	OMELL, GARY H 467 KILLEARN ST LOUIS, MO 63141	DR
NASEER, RIAZ A 1338 TOPPING RD. ST LOUIS, MO 63131	N	NYE, ROBT S 8701 GRAVOIS AVE ST LOUIS, MO 63123	GP	ONG, ENG L 1276 WHITE RD CHESTERFIELD, MO 63017	OS
NASH, HELEN E 1441 N GRAND ST LOUIS, MO 63106	PD	NYSEWANDER, RICHARD W 1034 SO BRENTWOOD BLVD. SUITE 800 ST. LOUIS, MO 63117	P	ONG, OFELIA S 1276 WHITE RD CHESTERFIELD, MO 63017	OBG
NASH, HOMER E 3737 N KINGSHIGHWAY SUITE 101 ST LOUIS, MO 63118	PD	O'BANNOH, LON W 1125 GRAHAM RD FLORISSANT, MO 63031	IM	ONKEN, HENRY D 106 ABEROEN ST LOUIS, MO 63105	PS
NATHAN, LESTER J 777 S NEW BALLAS RD ST LOUIS, MO 63141	GS	O'BRIEN, EDWARD C 605 CANOLEBURY CT-APT B ST LOUIS, MO 63122	GP	OPANUGA, EMMANUEL A 2601 N. WHITTIER ST. LOUIS, MO 63113	GS
NEAR, DAVID M 1125 GRAHAM ROAD FLORISSANT, MO 63031	GS	O'BRIEN, EDWARD J 6150 OAKLAND AVE ST LOUIS, MO 63139	R	OPPENHEIMER, HENRY E 141 N MERAMEC AVE CLAYTON, MO 63105	IM
NELSON, JAMES S 500 SOUTH KINGSHIGHWAY ST LOUIS, MO 63110	PTH	O'BRIEN, ROBERT M 777 S NEW BALLAS RD ST LOUIS, MO 63141	ORS	ORENSTEIN, JOSEPH M 417 JACKSON AVE ST LOUIS, MO 63130	PUO
NELSON, JOHN R 12166 BIG BEND BLVD ST LOUIS, MO 63122	CD	O'CONNELL, TIMOTHY 777 S. NEW BALLAS ST LOUIS, MO 63141	GS	ORGEL, MAURICE N 1 HARCOURT DR ST LOUIS, MO 63105	IM
NEMEC, STANLEY S 6500 CHIPPEWA STE 1 ST LOUIS, MO 63109	R	O'CONNOR, DENNIS M 1465 SO GRAND BLVD. ST. LOUIS, MO 63104	PD	ORGEL, STUART M 9833 COPPER HILL RD ST LOUIS, MO 63124	IM
NESTER, CHARLES A 2060 HAMPTON ST LOUIS, MO 63139	GP	O'CONNOR, ROBT J 751 ST FRANCOIS ST FLORISSANT, MO 63031	GP	ORILLE, OSCAR P 503 SKYVUE ESTATES RO #3 WHEELING, WV 26003	R
NEUMAN, NEAL 456 N NEW BALLAS RD ST. LOUIS, MO 63141	U	O'DONNELL, JOS V 1661 DUNMORR ST LOUIS, MO 63131	IM	ORSAY, PAUL K 11155 DUNN RO RM 201 ST LOUIS, MO 63136	DR
NEWMAN, MATTHEW 1034 S. BRENTWOOD ST. LOUIS, MO 63117	OPH	O'DOWD, JAMES A 9405 MACKENZIE RO ST LOUIS, MO 63123	GP	ORTBALS, OAVIO W 8631 DELMAR BLVD SUITE ST LOUIS, MO 63124	IM
NEWMAN, PERCY 1109 N HANLEY RD ST LOUIS, MO 63130	OS	O'KEEFE, JOS D 135 W ADAMS ST KIRKWOOD, MO 63122	OBG	ORTIGUERO, LEOPOLDO M 10577 WINDSWEEP DR ST LOUIS, MO 63128	GP
NEWMARK, LEONARD N 777 S NEW BALLAS RD STE ST LOUIS, MO 63141	IM	O'KEEFE, TIMOTHY F 6150 OAKLAND ST. LOUIS, MO 63139	IM	ORTILLO, AMADO P 103 N TAYLOR ST LOUIS, MO 63122	GP
NEWPORT, GERALD 1125 GRAHAM RD FLORISSANT, MO 63031	OBG	O'NEAL, LAWRENCE W 615 SOUTH NEW BALLAS RD. ST LOUIS, MO 63141	GS	ORTMEYER, LEROY F 11372 FIVE OAKS PARKWAY ST LOUIS, MO 63128	IM
NEWTON, GORDON 141 N MERAMEC SUITE 202 ST LOUIS, MO 63105	IM	O'NEAL, PATRICIA L 4989 BARNES HOSP PLAZA- ST LOUIS, MO 63110	P	OSTAPOWICZ, FRANK 3660 VISTA AVE ST LOUIS, MO 63110	OBG
NEWTON, WM T 915 N GRANO BLVD ST LOUIS, MO 63106	GS	O'REILLY, D E 1325 S GRAND BLVD ST LOUIS, MO 63104	ORS	OTT, FLETCHER T 3 HILL DRIVE GLENDALE, MO 63122	OPH
NICKEL, JAMES F 621 S NEW BALLAS RD STE ST LOUIS, MO 63141	IM	O'SULLIVAN, DANL F 10007 KENNERLY RO SUITE A ST LOUIS, MO 63128	GS	OTT, HAROLD J 2816 SUTTON AVE ST LOUIS, MO 63143	GP
NICOLAI, CHAS H 2821 N BALLAS RD ST LOUIS, MO 63131	U	OAKLEY, MARGARET M 407 STEEPLE CHASE ST LOUIS, MO 63131	AN	OTT, HAROLD J 1695 S BRENTWOOD BLVD ST LOUIS, MO 63144	OBG
NIEDERMEYER, GEO J 6744 CLAYTON RD ST LOUIS, MO 63117	OBG	OBERMEYER, CHAS G 3957 HOLLY HILLS BLVD ST LOUIS, MO 63116	AN	OTT, WM J 365 WEST POINT CT ST LOUIS, MO 63130	OBG
NIESEN, ANNA T 6420 CLAYTON RD. ST. LOUIS, MO 63117	IM	OCHOA, PEORO 1704 SO BROADWAY ST LOUIS, MO 63104	GS	OTTOLINI, JAMES L 621 S NEW BALLAS RD ST LOUIS, MO 63141	OBG
NIESEN, FRANK J 6500 CHIPPEWA ST LOUIS, MO 63109	GS	OOREZIN, GREGORY T MALLINCKRODT INST RADIOLOGY 510 S. KINGSHIGHWAY ST. LOUIS, MO 63110	R	OWEN, JAMES W 13190 SOUTH OUTER FORTY ROAD CHESTERFIELD, MO 63017	IM
NIEVA, DELFIN T 5291 BRASS LANTERN ST LOUIS, MO 63128	AN	OERTLI, ROBERT 12345 MENTZ HILL RD. ST. LOUIS, MO 63128	IM	OWEN, ROBT F 12 HACIENDA OR ST LOUIS, MO 63124	IM
NIGH, CHAS A 3915 WATSON RD ST LOUIS, MO 63109	GS	OETTER, DONALD L 1040 MASON RD N ST LOUIS, MO 63141	A	OWENS, WM D BARNES HOSP P DPT ANES ST LOUIS, MO 63110	OS
NISHI, TOSHIO 3071 ANDOVER DR ST LOUIS, MO 63121	PTH	OGLESBY, RICHARD B 621 S NEW BALLAS RD ST LOUIS, MO 63141	OPH	OZANICH, KATHERINE M 639 NEWPORT AVE. WEBSTER GROVES, MO 63119	D
NOLAN, CHAS J 312 CHATEAUGAY CHESTERFIELD, MO 63017	R	OGNYANOV, VOISLAV F 551 WHITE ROSE LANE ST LOUIS, MO 63132	P	OZMAT, ORHAN M 4 LA DUE CREST LANE ST LOUIS, MO 63124	R
NOLLER, HENRY W 9440 MIDLAND AVE ST LOUIS, MO 63114	IM	OGURA, JOS H 1038 WINWOOD DRIVE ST LOUIS, MO 63124	OTO	PACKMAN, PAUL 4940 AUDUBON AVE ST LOUIS, MO 63110	P
NOMURA, ROY M 777 S NEW BALLAS ST LOUIS, MO 63141	PTH	OHLMS, DAVID L 777 S NEW BALLAS RD ST LOUIS, MO 63141	P	PACKMAN, ROBT C 4652 MARYLAND AVE. ST. LOUIS, MO 63108	IM
				PACKO, KIRK H 615 S. NEW BALLAS ST. LOUIS, MO 63141	OPH

PADILLA, DOMINGO JR 1325 SOUTH GRAND BLVD. ST. LOUIS, MO 63104	OB	PEDEN, JOS C JR 224 S. WOODS MILL RD. CHESTERFIELD, MO 63017	GS	PHIPATANAKUL, C S 1125 GRAHAM RD FLORISSANT, MO 63031	US
PADILLA, PEDRO C ST. ANTHONY'S HOSP. 10010 KENNERLY RD. ST. LOUIS, MO 63128	U	PEDEN, JOS C SR 665 S SKINKER BLVD APT ST LOUIS, MO 63105	R	PHIPATANAKUL, SUPOTE 135 W ADAMS ST LOUIS, MO 63122	OTO
PADILLA, TERESITA C 5505 DELMAR BLVD ST LOUIS, MO 63112	OBG	PEEBLES, JONATHAN B RR #1 BUCHANAN, TN 39222	US	PHO, MUI D 4930 LINDELL ST. LOUIS, MO 63108	EM
PAEZ, MAURO A 11636 ADMINISTRATION DR ST LOUIS, MO 63141	PTH	PELICAN, GEORGE 2821 N. BALLAS #270 ST LOUIS, MO 63131	GE	PICCIONE, LEONARD N 2377 BROADMONT CT CHESTERFIELD, MO 63017	GP
PAINE, ROBT 5535 DELMAR BLVD ST LOUIS, MO 63112	CD	PELZ, MORT D 1116 CHANTAL LANE ST LOUIS, MO 63132	OTO	PILEPICH, MILIENKO V 4511 FOREST PARK ST. LOUIS, MO 63108	R
PALAZZO, FRANK A 6744 CLAYTON RD ST LOUIS, MO 63117	NS	PENILLA, ANTONIO R 1325 S. GRAND BLVD. ST LOUIS, MO 63104	IM	PILLA, LAWRENCE A #7 HOMELAND PL ST LOUIS, MO 63109	R
PALETTA, FRANCIS X 1035 BELLEVUE ST LOUIS, MO 63117	PS	PENNINGTON, D G 1325 S. GRAND AVE. ST. LOUIS, MO 63104	GS	PIMENTEL, ESPERANZA M 2323 CHAMBERS ST LOUIS, MO 63136	GP
PALETTA, FRANK 1040 NORTH MASON RD ST LOUIS, MO 63141	CD	PENNINGTON, FRANCIS E 4160 GLIDDEN DR STURGEON BAY, WI 54235	GS	PIMENTEL, MAURICIO F VA HOSPITAL 915 NO GRAND ST LOUIS MO 63125	GP
PALETTA, THEODORE L 1040 MASON RD N ST LOUIS, MO 63141	CD	PENNOYER, JAMES 4910 FOREST PARK BLVD ST LOUIS, MO 63108	OBG	PINEDA, HECTOR O 4201 HEREFORD ST LOUIS, MO 63109	IM
PALETTA, VICTOR L 3450 BRIOGELANO OR. BRIOGETON, MO 63044	IM	PEPPER, EDWARD G 6150 OAKLANO AVE ST LOUIS, MO 63139	R	PIPER, AUGUST T 4903 MARTIN LUTHER KING ST LOUIS, MO 63113	IM
PALMBERG, PAUL F 660 S. EUCLID ST. LOUIS, MO 63110	OPH	PEPPER, MAX F DEPT OF COMMUNITY MEDIC ST LOUIS UNIV SCHOOL ST LOUIS, MO 63104	PH	PIPER, TERRENCE L 4960 AUDUBON ST. LOUIS, MO 63110	ORS
PALMER, STEPHEN M 1109 LAKESHORE OR. COLUMBIA, MO 65201	O	PEREZ, AOAMOR R 4415 VERMILLON DR ST LOUIS, MO 63128	GS	PITSINGER, NOLAN B 5505 DELMAR ST STE 511 ST LOUIS, MO 63112	GS
PAPPALAROO, CARLOS 621 S NEW BALLAS RD ST LOUIS, MO 63141	PS	PEREZ, BLANCA M 10010 KENNERLY DEPT OF PATH. ST. ANTONY'S MEO CTR. ST LOUIS, MO 63128	PTH	PITTMAN, GERALD R 5 HIGH ACRES OR ST LOUIS, MO 63132	PTH
PARDO, LEOPOLDO P 9936 HIGHWAY 66 ST LOUIS, MO 63126	NS	PEREZ, CARLOS A 510 S KINGSHIGHWAY ST LOUIS, MO 63110	TR	PITTMAN, SUSAN 522 N NEW BALLAS RO ST LOUIS, MO 63141	PO
PARDOS, GEORGE J 1515 #3 OLD HICKORY RO. CORALVILLE, IA 52241	OPH	PEREZ, ROBERT J 10928 RIDGE FOREST OR. ST. LOUIS, MO 63123	IM	PIZZIMONHO, CARLOS A 1212 BROADWAY HIGHLAND, IL 62249	GS
PARIKH, SHARAO P 7521 W. FLORISSANT ST LOUIS, MO 63136	GS	PEREZ, ROMEO J 3015 N. BALLAS RD. ST. LOUIS, MO 63131	OBG	PLAX, STEVEN I 8025 DALE ST LOUIS, MO 63117	PD
PARIS, WM H 7520 NATURAL BRIDGE RD NORMANDY, MO 63121	US	PERKINS, DAVIO E 1034 S BRENTWOOD ST LOUIS, MO 63117	OR	PLUMPE, WM T 4415 MINNOSOTA ST LOUIS, MO 63111	IM
PARK, AGATHA L 11155 OUNN RO ST LOUIS, MO 63136	O	PERNOUD, FLAVIUS G 6735 WESTWAY ROAO ST LOUIS, MO 63109	OPH	PORPORIS, ARTHUR A 924 RENDERER OR ST LOUIS, MO 63122	R
PARKER, THOS W 7298 GREENWAY DR ST LOUIS, MO 63130	IM	PERNOUD, FLAVIUS G 1035 BELLEVUE ST LOUIS, MO 63117	OPH	PORTNOY, JOSEPH L 14377 WOODLAKE DR. CHESTERFIELD, MO 63017	PD
PARKER, WM 611 OLIVE ST ST LOUIS, MO 63101	O	PERNOUD, JOAN M 6735 WESTWAY ROAO ST LOUIS, MO 63109	OPH	PORTUGAL, ANTONIO Q 6500 CHIPPEWA STE 211 ST LOUIS, MO 63109	GS
PARKS, CHARLES SUITE 129 456 N NEW BALLAS RO CREVE COEUR, MO 63141	GS	PERNOUD, MICHAEL F 1035 BELLEVUE SUITE 501 ST LOUIS, MO 63117	OPH	PORTUONDO, BONAVENTURE C 3532 FLORA COURT ST LOUIS, MO 63104	PTH
PARSONS, RICHARD P 224 S WOODS MILL RO CHESTERFIELD, MO 63017	U	PERRY, H. MITCHELL JR. VA MEDICAL CENTER 1110 JC ST LOUIS, MO 63125	CO	POST, STEPHEN L 4524 FOREST PARK APT 20 ST LOUIS, MO 63108	P
PARTAP, PRABHA 2362 RAVENSGATE ST LOUIS, MO 63131	PTH	PERRY, WM D 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	IM	POTASHNICK, ROBT 12255 OE PAUL OR SUITE 865 BRIDGETON, MO 63044	IM
PARWATIKAR, SADASHYI O 5400 ARSENAL ST ST LOUIS, MO 63139	P	PESKIN, EDWARD G 4911 BARNES HOSPITAL PL ST LOUIS, MO 63110	OBG	POTTER, REESE H 100 N EUCLIO AVE ST LOUIS, MO 63108	P
PASIA, EBELLO T 11115 NEW HALLS FERRY FLORISSANT, MO 63133	GS	PESSES, DAVIO 2112 S COMPTON AVE. ST. LOUIS, MO 63104	FP	POTTS, QAN E 114 NORTH TAYLOR AVE ST LOUIS, MO 63108	US
PASKAR, LARRY O 14337 STABLESTONE CHESTERFIELD, MO 63017	R	PETERSON, FREDERICK D 8025 OALE AVE ST LOUIS, MO 63117	PO	POWELL, CHARLES B 1125 GRAHAM RD FLORISSANT, MO 63031	ORS
PASSANANTE, BARTHOLDMEW M 15 KING LYNN ST LOUIS, MO 63132	GS	PETERSON, GARY J V. A. MEDICAL CENTER 112 B JC ST LOUIS, MO 63125	GS	POWELL, EARL A 11114 PALMERAS OR SUN CITY, AZ 85351	U
PATEL, B K 1711 PRENOERGAST LANE ST LOUIS, MO 63138	R	PETRUSKA, PAUL J 1325 S GRANO ST LOUIS, MO 63104	IM	POWELL, JOHN A 911 SO BRENTWOOD ST LOUIS, MO 63105	D
PATRICK, ROMAN L 11636 ADMINISTRATION DR CREVE COEUR, MO 63141	PTH	PFEIFER, OLIVER C 6567 MURDOCK ST LOUIS, MO 63109	GP	POWERS, PIERCE W 5203 CHIPPEWA ST ST LOUIS, MO 63109	GS
PAULL, BARRY R 1161 HYOE PARK SANTA ANA, CA 92705	R	PHILIP, VARKEY 525 COUCH AVE KIRKWOOD, MO 63122	OS	PRENSKY, ARTHUR L OEPT OF PEOIATRICS WASH 500 S KINGSHIGHWAY ST LOUIS, MO 63178	N
PAYNE, MEREDITH C 7314 WESTMORELANO PLACE ST LOUIS, MO 63130	PS	PHILLIPS, ABRAHAM M 777 S NEW BALLAS RO ST LOUIS, MO 63141	PD	PRESNELL, CLEITUS A 6744 CLAYTON RO ST LOUIS, MO 63117	OTO
PAYNE, VAUGHN C 1423 N GRAND BLVO ST LOUIS, MO 63106	GP	PHILLIPS, HANFORD 6828 OAKLANO AVE ST LOUIS, MO 63139	IM	PRICE, KENNETH C 5505 OELMAR- ROOM 201 ST LOUIS, MO 63112	CD
PEARLMAN, ALAN L 660 S EUCLIO AVE ST LOUIS, MO 63110	N	PHILLIPS, JOHN J 12255 OE PAUL DR BRIOGETON, MO 63044	OBG	PROBST, RAYMOND E 10345 WATSON RD ST LOUIS, MO 63127	OBG
PEARSON, WILLIAM E 12166 BIG BENO KIRKWOOD, MO 63122	OBG	PHILLIPS, WM J 5505 DELMAR ST LOUIS, MO 63112	CO	PROBST, JACOB G 4943 LINOELL BLVD ST LOUIS, MO 63108	GS
PEDEN, BURNET W 35 N CENTRAL AVE CLAYTON, MO 63105	IM	PHILPOTT, GORDON W 216 SOUTH KINGSHIGHWAY ST LOUIS, MO 63110	GS	PROPHETE, BEAUMANOIR 3737 N KINGSHIGHWAY BLV ST LOUIS, MO 63115	U

COMPONENT SOCIETY ROSTER

PROSKEY, VINCENT J 522 N NEW BALLAS RD ST LOUIS, MO 63141	IM	REDDY, M V 5400 ARSENAL ST ST LOUIS, MO 63139	N	RHEE, SEOUNG E 3551 EVERGREEN LANE ST LOUIS, MO 63125	GP
PROSSER, JOSEPH S 10713 SAWARA DR. PENSACOLA, FL 32500	IM	REDDY, NALINI A CITY HOSPITAL 1515 LAFAYETTE ST. LOUIS, MO 63104	OPH	RIBAUDO, J M 456 N NEW BALLAS RD SUITE 266 ST LOUIS, MO 63141	PS
PRUETT, BURCHARD S 10321 RICHVIEW DR ST LOUIS, MO 63127	OS	REDDY, RANGA V 1130 BEAU JARDIN CT. ST. LOUIS, MO 63141	AN	RICHARDS, FRANK O 3737 N KINGSHIGHWAY ST LOUIS, MO 63115	GS
PRUETT, DON S 10 LOG CABIN DR ST LOUIS, MO 63124	GS	REDINGTON, JAMES C 911 S BRENTWOOD ST LOUIS, MO 63105	IM	RICHARDSON, THOS P 4989 BARNES HOSPITAL PL ST LOUIS, MO 63110	P
PRUETT, HUBERT S 9 MC KNIGHT LANE ST LOUIS, MO 63124	GP	REED, LESLIE G VA HOSPITAL 170 - J C ST LOUIS, MO 63125	GP	RICHMAN, ELMER P O BOX 105 CHESTERFIELD, MO 63017	A
PURCELL, HARRY K 911 S BRENTWOOD BLVD ST LOUIS, MO 63105	GS	REESE, A VICTOR 120 E LOCKWOOD AVE WEBSTER GROVES, MO 63119	GP	RICHMOND, MICHAEL R 1542 WOODLAKE DR. CHESTERFIELD, MO 63017	IM
PURCELL, JOHN 6744 CLAYTON RD ST LOUIS, MO 63117	OPH	REESE, LESTER T 522 N NEW BALLAS RD-STE ST LOUIS, MO 63141	D	RIDGEWAY, WM G 6651 CHIPPEWA ST LOUIS, MO 63109	OPH
PURO, EDWARD A 6254 WATERMAN ST. LOUIS, MO 63130	IM	REEVES, GLEN I USAF MED CTR. HMR 1739 KEESLER AFB, MS 39534	TR	RIES, DOUGLAS A 1511 HAMPTON HALL DR. #12 CHESTERFIELD, MO 63017	GS
PYNE, HERBERT S 6651 CHIPPEWA ST LOUIS, MO 63109	GP	REH, EDWARD P JR. 615 S. NEW BALLAS RD. ST. LOUIS, MO 63141	IM	RIGGIO, SALVATORE N 10349 WATSON RD ST LOUIS, MO 63127	PD
QUADIR, HUMAYUM 10004 KENNERLY RD ST LOUIS, MO 63128	IM	REH, THOS E 6420 CLAYTON RD ST LOUIS, MO 63117	R	RILEY, JOHN J 12255 DEPAUL DR SUITE 345 BRIDGETON, MO 63044	IM
QUICK, RICHARD T 9821 COPPER HILL ROAD ST LOUIS, MO 63124	P	REHM, CHARLES H JR 621 S. NEW BALLAS SUITE 611 CREVE COEUR, MO 63141	IM	RINER, RONALD N ST. MARYS HEALTH CTR. 6420 CLAYTON ST. LOUIS, MO 63117	CD
QURESHI, ABDUL R 10004 KENNERLY ROAD ST LOUIS, MO 63128	IM	REICHERT, TIMOTHY J 500 S. KINGSHIGHWAY ST. LOUIS, MO 63110	OTO	RING, EDWARD M 522 N NEW BALLAS RD SUITE 344 ST LOUIS, MO 63141	TS
RACADIO, SEVERO M P. O. BOX 1 ARNOLD, MO 63010	GP	REICHERT-PASZKIEWICZ, M 10063 ELISE DR ST LOUIS, MO 63123	IM	RINGENBERG, BEVERLY J ST. MARY'S HOSP. 6420 CLAYTON RD. ST. LOUIS, MO 63117	EM
RACHLIN, MAXWELL 211 N MERAMEC ST LOUIS, MO 63105	OPH	REIDER, RICHARD A 353 RUE RENER ST LOUIS, MO 63122	IM	RITCHIE, FRANCES R 720 OLIVE ST 24TH FLOOR ST LOUIS, MO 63101	GP
RADER, EDWARD S 7744 DAVIS DR. CLAYTON, MO 63105	U	REINECK, JOHN A 5410 RHODES ST LOUIS, MO 63109	OM	RITTER, HUBERT A 1035 BELLEVUE RICHMOND HEIGHT, MO 63117	OBG
RADER, GEO B 224 S. WOODS MILL RD. SUITE 430 CHESTERFIELD, MO 63017	GS	REINKE, FRED W 615 SO. NEW BALLAS RD ST. LOUIS, MO 63141	PTH	RITTER, PAUL J 1035 BELLEVUE RICHMOND HEIGHT, MO 63117	OBG
RAHMAN, MOUDUDUR 911 S BRENTWOOD ST LOUIS, MO 63105	OPH	REINHARD, EDWARD H 4989 BARNES HOSPITAL PL ST LOUIS, MO 63110	IM	RIZZO, ADOLFO E 9216 CLAYTON RD STE 105 ST LOUIS, MO 63124	CHP
RAICHEL, MARCUS E 710 JAMAICA CT ST LOUIS, MO 63122	N	REIS, MARCOS M 1755 S. GRAND BLVD. ST. LOUIS, MO 63104	IM	ROARK, PAUL M 187 CONCORD PLAZA ST LOUIS, MO 63128	OPH
RAIKAR, SUDHIR R 3200 S. 13TH ST. ST. LOUIS, MO 63118	PD	REISLER, DAVID M 224 SO WOODS MILL RD. SUITE 550 CHESTERFIELD, MO 63017	N	ROBBEN, GEORGE G 2821 NO BALLAS RD ST LOUIS, MO 63131	IM
RAINEY, ROBT 5165 LINDELL BLVD ST LOUIS, MO 63108	OM	REITER, FEDERICO B 11155 DUNN RD ST LOUIS, MO 63136	DR	ROBBINS, PHILIP 621 S NEW BALLAS RD ST LOUIS, MO 63141	CRS
RAJA-SEKHAR, RUDRAIAH 1325 S. GRAND BLVD. ST. LOUIS, MO 63104	AN	REITMAN, STANLEY 158 MAYFAIR PLAZA FLORISSANT, MO 63033	IM	ROBERTS, HAROLD K 434 S HANLEY RD CLAYTON, MO 63105	IM
RAMIREZ, SAML G 11921 SACKSTON RIDGE DR ST LOUIS, MO 63141	IM	REJENT, ANTHONY J 4211 BAYLESS RD ST LOUIS, MO 63123	PD	ROBERTS, JOHN P 3015 BARRETT'S STATION R KIRKWOOD, MO 63122	IM
RAMSEY, ROBT H 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	IM	RENDLEMAN, DAVID D 532 MIDVALE ST. LOUIS, MO 63130	IM	ROBERTSON, FRANK G 456 NO NEW BALLAS RD ST LOUIS, MO 63141	OBG
RANDOLPH, BERNARD C 3737 N KINGSHIGHWAY ST LOUIS, MO 63115	GP	RENDLEMAN, GEO F JR 818 OLIVE ST #1023 ST LOUIS, MO 63101	GS	ROBINSON, EDITH C BRIAR OAK ST LOUIS, MO 63132	CHP
RANKIN, DIANE 4521 PERSHING ST ST LOUIS, MO 63108	CHP	RENDLEMAN, GEO F SR 818 OLIVE ST #1023 ST LOUIS, MO 63101	GS	ROBLEE, MELVIN A WESTMINSTER-CANTERBURY HS 1600 WESTBROOK APT 228 RICHMOND, VA 23227	OBG
RAO, ASWATH N 6500 CHIPPEWA ST ST LOUIS, MO 63109	ORS	RENNARD, MARVIN 2821 N BALLAS RD STE 25 ST LOUIS, MO 63131	OBG	ROCHE, MAURICE B 4400 LINDELL BLVD APT. 3M ST LOUIS, MO 63108	ORS
RAO, CARLO 7521 W FLORISSANT ST LOUIS, MO 63136	GS	REPP, THEODORE J 158 MAYFAIR PLAZA FLORISSANT, MO 63033	IM	RODEN, VERNON J 456 N NEW BALLAS RD ST LOUIS, MO 63141	PD
RAO, S N 10922 ST CHARLES ROCK R ST ANN, MO 63074	GP	REUTER, LOUIS A 911 S BRENTWOOD BLVD SUITE 100 ST LOUIS, MO 63105	OM	RODRIGO, BERNARDO R 12537 ROYAL MANOR ST LOUIS, MO 63141	AN
RAPPOLD, OTTO H 500 NORTHWEST PLAZA-APT ST ANN, MO 63074	OBG	REYES, JOSE T 455 STEEPLE CHASE LANE ST LOUIS, MO 63131	AN	RODRIGUEZ, UBALDO R 2650 TELEGRAPH RD ST LOUIS, MO 63125	GS
RATCHESON, ROBT A BARNES HOSP-DEPT NEUR-S ST LOUIS, MO 63110	NS	REYES, LOIS A 9814 MAR-ANN CT ST LOUIS, MO 63128	GS	ROGERS, HUNTER B 819 LOCUST ST ST LOUIS, MO 63101	GS
RATKIN, GARY A 100 N EUCLID ST LOUIS, MO 63108	IM	REYNOLDS, FREDERICK C 10094 BRIARWOOD DR. ST. LOUIS, MO 63124	GP	ROLLO, JOHN L 11133 DUNN RD. ST. LOUIS, MO 63136	PTH
RAY, JEAN L P. O. BOX 2114 DAMMAM SAUDI ARABIA, 00000	GP	REYNOLDS, JAMES A 224 S. WOODS MILL RD. CHESTERFIELD, MO 63017	IM	RON, AMIR WASHINGTON UNIVERSITY 4940 AUDUBON ST. LOUIS, MO 63110	P
RAYBUCK, HARRY E 3533 RITZ CENTER ST LOUIS, MO 63125	OBG	RHEE, DONG S P. O. BOX 24507 ST LOUIS, MO 63141	AN	ROOS, ALBERT 660 S EUCLID ST LOUIS, MO 63110	AN
REARDON, THOS F 771 GABRIEL CT ST LOUIS, MO 63122	IM			ROPER, CHAS L BARNES HOSP PLAZA ST LOUIS, MO 63110	TS
RECANO, RICARDO Q 4440 NAZARETH HILLS DR ST LOUIS, MO 63129	GP				
REDDY, DYAPA S 430 WHITREE LANE CHESTERFIELD, MO 63017	PD				

OS	SHANER, THOS P 2821 NORTH BALLAS ST LOUIS, MO 63131	DBG	SIGMUND, CHAS A 12255 DE PAUL RD SUITE 109 BRIDGETON, MO 63044	OPH
OBG	SHANK, ROBT E 4566 SCOTT AVE ST LOUIS, MO 63110	IM	SIGNORELLI, ANDREW J 12634 OLIVE ST RD ST LOUIS, MO 63141	US
PD	SHAPLEIGH, JOHN B 1034 S BRENTWOOD BLVD S ST LOUIS, MO 63117	IM	SILBER, SHERMAN J 456 NO N BALLAS RD ST LOUIS, MO 63141	U
PD	SHARP, AUSTIN R 901 CLAYTON RD BALLWIN, MO 63011	PD	SILVER, BERND 211 NORTH MERAMEC ST LOUIS, MO 63105	OPH
P	SHATZ, BURTON A 10287 CLAYTON RD ST LOUIS, MO 63124	GE	SILVERBERG, CHAS 10004 KENNERLY RD SUITE 315 ST LOUIS, MO 63128	IM
AN	SHATZ, GERALD S 522 N NEW BALLAS ST LOUIS, MO 63141	A	SILVERMINTZ, SAUL D 20 GRANADA WAY ST LOUIS, MO 63124	IM
GS	SHATZ, RICHARD N 456 N. NEW BALLAS RD. ST LOUIS, MO 63141	PS	SIMON, DAVID L 7BD9 GANNON ST LOUIS, MO 63130	PD
GP	SHAW, EDWARD J 3654 SOUTH GRAND BLVD ST LOUIS, MO 63118	GS	SIMON, NATHAN M 32 CRESTWOOD ST LOUIS, MO 63105	PH
GP	SHAW, MICHAEL D 615 S. NEW BALLAS RD. ST LOUIS, MO 63141	PD	SIMOWITZ, FREDRIC M 2850 W. CLAY ST. ST. CHARLES, MO 63301	N
R	SHAW, RICHARD C 216 S KINGSHIGHWAY ST LOUIS, MO 63110	GS	SIMPSON, JOSEPH 4511 FOREST PARK ST LOUIS, MO 63108	IM
PD	SHAW, ROBERT D JR 615 S. NEW BALLAS RD. ST LOUIS, MO 63141	FP	SIMRIL, WAYNE A 21 SOMERSET DOWNS ST LOUIS, MO 63124	DR
GP	SHEA, JOHN F 1325 S. GRAND BLVD. ST LOUIS, MO 63104	NS	SIMS, WM A 6 GREENBRIAR LANE ST LOUIS, MO 63124	AN
P	SHEEHAN, PAUL J 1325 S. GRAND BLVD. ST LOUIS, MO 63104	GS	SINGER, PAUL R 660 S. EUCLID ST LOUIS, MO 63110	OPH
GS	SHEFFNER, PAUL W 4940 AUDUBON ST LOUIS, MO 63110	P	SINGH, GURCHARAN J 6420 CLAYTON ST LOUIS, MO 63117	IM
OPH	SHELTON, EARL W 4451 NATURAL BRIDGE AVE ST LOUIS, MO 63115	IM	SINGH, PRITHVI P 5535 DELMAR BLVD. ST LOUIS, MO 63112	IM
GP	SHEN, HANG C 273 PRINCE TOWNE ST LOUIS, MO 63141	R	SINGHAL, GOKUL C 6500 CHIPPEWA AVE ST LOUIS, MO 63109	IM
PUD	SHEN, JEROME T 1695 S BRENTWOOD BLVD ST LOUIS, MO 63144	PD	SISK, CLARK 1442 SW DAVENPORT PORTLAND, OR 97201	D
OTO	SHERIDAN, JOHN J 6651 CHIPPEWA ST ST LOUIS, MO 63109	ORS	SISK, JAMES C 121 N BRENTWOOD BLVD CLAYTON, MO 63105	D
R	SHERMAN, WARREN G 10004 KENNERLY ST LOUIS, MO 63128	PD	SISLEN, DONALD R 621 S NEW BALLAS ROAD ST LOUIS, MO 63141	IM
ORS	*SHERROD, GLENN M 12255 DEPAUL DR. SUITE 770 BRIDGETON, MO 63044	N	SISSON, RICHARD G 4511 FOREST PARK BLVD ST LOUIS, MO 63108	GS
IM	SHERWIN, CHAS S 3971 FLORA PL ST LOUIS, MO 63110	GS	SKEFFINGTON, MARY J CLAYTON HOUSE RETIREMEN 1251 E CLAYTON RD MANCHESTER, MO 63011	OPH
GP	SHIEDER, WM 216 S KINGSHIGHWAY BLVD ST LOUIS, MO 63110	GS	SKILLING, DAVID M 610 S BERRY RD ST LOUIS, MO 63122	PUD
GS	SHIELDS, JOHN B 33 FLOWER HILL CT ST LOUIS, MO 63122	R	SKIMMING, W L 621 S NEW BALLAS RD ST LOUIS, MO 63141	ORS
GP	SHOBE, FRANK O 1034 S BRENTWOOD BLVD S ST LOUIS, MO 63117	P	SKINNER, JOHN S 35 N CENTRAL ST LOUIS, MO 63105	IM
R	SHORT, CHARLES D 3015 N. BALLAS RD. ST LOUIS, MO 63131	PTH	SLAVIN, RAYMOND G 1402 SOUTH GRAND ST LOUIS, MO 63104	A
IM	SHUFF, PAUL D 1035 BELLVUE STE 417 ST LOUIS, MO 63117	OTO	SLETTEN, IVAN W 11155 DUNN RD ST LOUIS, MO 63136	P
U	SHUMAN, JOS S DE PAUL MEDICAL BLDG 12255 DE PAUL DR SUI BRIDGETON, MO 63044	P	SLIOM, CYRIL M DEPT ANESTHESIOLOGY JEWISH HOSPITAL ST LOUIS, MO 63178	AN
OPH	SHUTER, ELI 11155 DUNN RD ST LOUIS, MO 63136	N	SLOCUM, STEPHEN G 211 N. MERAMEC CLAYTON, MO 63105	OPH
GS	SHYKEN, HERMAN 141 N MERAMEC CLAYTON, MO 63105	R	SLY, WM S 50D S KINGSHIGHWAY BLVD ST LOUIS, MO 63110	OS
U	SIDDIQUI, FARZANNA Q 1550 A ST CLAIR AVE GRANITE CITY, IL 62040	P	SMILEY, WM L 2715 UNION BLVD ST LOUIS, MO 63113	OBG
P	SIDDIQUI, JAWED H 11115 NEW HALLS FERRY #301 FLORISSANT, MO 63033	IM	SMIT, HERBERT M 8724 W KINGBURY ST LOUIS, MO 63124	OTO
OPH	SIDDIQUI, M Y 2601 N WHITTIER ST ST LOUIS, MO 63113	GS	SMITH, BENJ F 5 FORDYCE MANOR ST LOUIS, MO 63131	OBG
OPH	SIEGFRIED, BARRY BARNES HOSP DIV. OF LAB MED. ST LOUIS, MO 63110	PTH	SMITH, DERMOTT A 1221 S GRAND BLVD ST LOUIS, MO 63104	P
R	SIEMERS, GEO E 12660 LAMPLIGHTER SQUAR ST LOUIS, MO 63128	OBG	SMITH, EMILY L 510 S KINGS HIGHWAY ST LOUIS, MO 63110	DR
IM	SIESENER, HERBERT H NORTHLAND MED BLDG STE ST LOUIS, MO 63136	IM	SMITH, GARLAND F 621 S NEW BALLAS RD ST LOUIS, MO 63141	ORS
GP				

SMITH, HERBERT P 2265 FLORIDA MANGD RD WEST PALM BEACH, FL 33406	GP	ST JOHN, THOMAS C 10017 CHARDINWAY APT 2	OM	STRYKER, WM I 12 OAKLEIGH LANE ST LOUIS, MO 63124	P
SMITH, HUGH R 6651 CHIPPEWA ST LOUIS, MO 63109	OBG	ST LOUIS, MO 63128 STAFFORD, WALTER R 141 N MERAMEC AVE CLAYTON, MO 63105	OPH	STUEBNER, ROLAND W 11964 ADORONO PLACE SAN DIEGO, CA 92128	GS
SMITH, JAMES B 35 NORTH CENTRAL ST LOUIS, MO 63105	P	STANFIELD, NED M 8048 BLACKBERRY AVE UNIVERSITY CITY, MO 63130	AN	SUBA, ANTONIO R 141 N MERRAMEC AVE ST LOUIS, MO 63105	GS
SMITH, JOHN E 4336 FOREST DE VILLE ST LOUIS, MO 63129	PH	STANLEY, ROBT J 510 S KINGSHIGHWAY ST LOUIS, MO 63110	R	SUDEKUM, ANN 2821 N BALLAS ST LOUIS, MO 63131	PD
SMITH, KATHLEEN 1420 CRATTAN ST ST LOUIS, MO 63104	P	STARKLOFF, GENE B 5266 WESTMINSTER ST LOUIS, MO 63108	GS	SUDEKUM, JOSEPH M 841 CHAPEL OAKS ST LOUIS, MO 63131	ORS
SMITH, KENNETH R 1325 S GRAND BLVD ST LOUIS, MO 63104	NS	STARKLOFF, MAX 6304 S GRAND AVE ST LOUIS, MO 63111	IM	SUDHOLT, ALFRED F 500 NORTHWEST PLAZA STE ST ANN, MO 63074	OBG
SMITH, KEVIN B 14382 WOODLAKE DR CHESTERFIELD, MO 63017	FP	STAVRIDES, PETE D 6500 CHIPPEWA ST LOUIS, MO 63109	ORS	SULLIVAN, CLEMENT J 6744 CLAYTON RD RM 311 ST LOUIS, MO 63117	IM
SMITH, MORTON E 660 S EUCLID ST ST LOUIS, MO 63110	DPH	STEELE, JACK T 3466 BRIDGELAND SUITE 110 BRIDGETON, MO 63044	US	SULLIVAN, WM K #23 CONWAY LANE ST LOUIS, MO 63124	AM
SMITH, NDRIS W 3654 S GRAND BLVD ST LOUIS, MO 63118	OBG	STEIN, ARTHUR H 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	US	SULLIVAN, WM W 12166 BIG BEND BLVD KIRKWOOD, MO 63122	IM
SMITH, ROBT W 10010 KENNERLY RD ST LOUIS, MO 63128	R	STEIN, HARRY J 6917 W FLOISSANT JENNINGS, MO 63136	GP	SUMER, CENGIZ M 220 RUNNYMEDE DR ST LOUIS, MO 63141	P
SMITH, SIDNEY E 2715 UNIDN ST ST LOUIS, MO 63113	IM	STEIN, PAUL M 777 SOUTH NEW BALLAS RD ST LOUIS, MO 63141	IM	SUMER, EMEL A 220 RUNNYMEDE DR ST LOUIS, MO 63141	CHP
SOBKY, GEORGE 1826 WATERFORD RIDGE DR. MANCHESTER, MO 63011	R	STEINBERG, FRANZ U 216 SOUTH KINGSHIGHWAY ST LOUIS, MO 63110	PM	SUMMERS, JOHN B 10349 WATSON RD ST LOUIS, MO 63127	PD
SOBOL, STEVEN M BARNES HOSPITAL PLAZA ST LOUIS, MO 63110	OTO	STEINER, ALEXANDER J 141 N MERAMEC AVE STE 2 CLAYTON, MO 63105	PUD	SUMMERS, THOS F #100 N EUCLID P O BOX 23053 ST LOUIS, MO 63156	GP
SDHN, RICHARD 4989 BARNES HOSPITAL PL ST LOUIS, MO 63110	N	STEPHEN, CHAS R 13 BALCON ESTATES ST LOUIS, MO 63141	AN	SUNDERMAN, RAYMOND C 1600 MONTICELLO DR ST LOUIS, MO 63138	IM
SOLLEY, RDBT F 236 WEST CHANNEL RD. SANTA MONICA, CA 90402	IM	STEPHENS, LEROY J 21B SYLVESTER ST LOUIS, MO 63119	PD	SUNSHINE, HERBERT 707 WAYFIELD ST LOUIS, MO 63132	U
SOLDON, FELIX G 11326 MOSLEY LANE ST LOUIS, MO 63141	AN	STEPHENS, WM A RT 3 BDX 141 KEHRS MILL RD CHESTERFIELD, MO 63017	DRS	SUSMAN, NOAH 4511 FOREST PARK AVE ST LOUIS, MO 63108	R
SOMMER, CONRAD S 200 S. HANLEY RD. SUITE 700 ST LOUIS, MO 63105	P	STERGEN, NICK E 5647 BERMUDA DR ST LOUIS, MO 63121	OBG	SUTTER, RICHARD A 819 LOCUST ST ST LOUIS, MO 63101	OM
SOMMER, ROSS B 1034 S BRENTWOOD ST ST LOUIS, MO 63117	IM	STERKEL, RICHARD L 1035 BELLEVUE ST LOUIS, MO 63117	IM	SVANCAREK, WM P 408 OLD MERAMEC STA RD MANCHESTER, MO 63011	OS
SOORYA, DUSHYANT T 1217 QUANTOCK #10 ST LOUIS, MO 63125	PD	STEWART, FRANCES H 7161 DELMAR BLVD ST LOUIS, MO 63130	OBG	SWAYKUS, BERNARD T 3394 MC KELVEY RD BRIDGETON, MO 63044	IM
SOORYA, NARENDIR T 6651 CHIPPEWA ST LOUIS, MO 63109	P	STICKLE, ARTHUR W 135 W ADAMS KIRKWOOD, MO 63122	OBG	SWEET, HERBERT C 3 ST JAMES COURT WEBSTER GROVES, MO 63119	PUD
SOPUCH, JOHN A 500 NDRTHWEST PLAZA ST ANN, MO 63074	OBG	STICKLEY, LOUIS P 621 S NEW BALLAS RD ST LOUIS, MO 63141	OPH	SWOPE, JOS A 10004 KENNERLY ST LOUIS, MO 63128	IM
SOSNA, JACOB P 6651 CHIPPEWA ST LOUIS, MO 63109	IM	STILLINGS, WAYNE 1034 S BRENTWOOD SUITE 1160 ST LOUIS, MO 63117	CD	SYLVANOVICH, W R ST JOHNS MERCY MED CTR 615 SOUTH NEW BALLAS ST LOUIS, MO 63141	GE
SOTD, ALBERT A 522 N NEW BALLAS RD ST LOUIS, MO 63141	P	STINDEL, CHAS E 341 VIOLET LANE ST LOUIS, MO 63119	P	TACA, ARTURO M 10430 PAGE BLVD. ST LOUIS, MO 63132	U
SOULE, SAML D 911 S BRENTWOOD ST LOUIS, MO 63105	OBG	STDRH, PAUL E 1035 BELLEVUE AVE ST LOUIS, MO 63117	OM	TAILOR, CHANDRAKANT C 510 S. KINGSHIGHWAY ST LOUIS, MO 63110	R
SPALDING, DONALD G 621 S NEW BALLAS RD ST LOUIS, MO 63141	R	STOKES, JAMES M 224 S. WOODS MILL RD. SUITE 340 CHESTERFIELD, MO 63017	NS	TALABAN, RAYMUNDO D 703 W MAIN FREDERICKTOWN, MD 63645	GS
SPECTOR, GENE W 4511 FOREST PARK AVE ST LOUIS, MO 63108	R	STOLAR, BRUCE 11115 NEW HALLS FERRY FLORISSANT, MO 63033	GS	TANAKA, GEO M 59 GRASSO PLAZA ST LOUIS, MO 63123	IM
SPECTOR, GERSON 517 SOUTH EUCLID ST LOUIS, MO 63110	OTO	STONEMAN, WM 5217 WESTMINSTER PL ST LOUIS, MO 63108	U	TANGSHEWINSIRIKUL, P HACKENSACK HOSP HACKENSACK, NJ 07601	R
SPENO, ANGELD A 1001 N HIGHWAY DRIVE FENTON, MO 63026	OM	STRADER, RICHARD P 621 SOUTH NEW BALLAS RD ST LOUIS, MO 63141	PS	TANNENBAUM, JEROME S 216 S. KINGSHIGHWAY ST LOUIS, MO 63110	IM
SPINZIG, EDGAR W 5 HAWBROOK LANE KIRKWOOD, MO 63122	R	STRATMANN, HENRY G 1325 S. GRAND ST LOUIS, MO 63104	AN	TAPPER, STEVEN 1301 KENDON DR ST LOUIS, MO 63131	U
SPITZ, MILTON A 1901 LINCOLN PK W CHICAGO, IL 60614	IM	STRELZOW, VICTOR V 1325 S. GRAND ST LOUIS, MO 63104	IM	TASHMA, SIGMUND S 904 DALKEITH LANE ST LOUIS, MO 63132	US
SPIVACK, ALAN R 10511 DLD OLIVE ST RD ST LOUIS, MO 63141	IM	STROBACH, KURT F 3394 MC KELVEY ROAD BRIDGETON, MO 63044	OTO	TATKOW, RDBERT W 456 N NEW BALLAS SUITE 369 ST LOUIS, MO 63141	DRS
SPOENEMAN, MARLIN C 4421 NE 25TH AVE LIGHTHOUSE POIN, FL 33064	GP	STROMINGER, DONALD B 4989 BARNES HOSP PLAZA- ST LOUIS, MO 63110	OBG	TAULBEE, WAYNE A 8164 BLUEWATER TRAIL ST LOUIS, MO 63123	OPH
SPRAUL, JAMES H 800 ND LINDBERGH ST LOUIS, MO 63166	OM	STRONSKY, DAVID 12166 BIG BEND BLVD ST LOUIS, MO 63122	PDA	TAUSSIG, BARRETT L 513 PAMELA LANE ST LOUIS, MO 63122	IM
SQUITIERI, ALPHONSE J 9616 LACKLAND AVE ST LOUIS, MO 63114	IM	STROUD, MALCOLM H 517 SDUTH EUCLID ST LOUIS, MO 63110	ORS	TAUTE, HERMANN 2821 N BALLAS RD ST LOUIS, MO 63131	DBC
SRISURD, CHDTCHAI 533 COUCH AVE. ST LOUIS, MO 63122	DBG	STRYKER, GAROLD V #1 GULF MANOR DR VENICE, FL 33595	OTO	TAYLOR, EUGENE D 2715 N UNION ST LOUIS, MO 63113	OBG
SRIVISAL, SOMNUK 1877 SCHDETTLER VALLEY CHESTERFIELD, MO 63017	R		OS		

COMPONENT SOCIETY ROSTER

TAYLOR, ROBERT W JR 616 PROSPECT APT. #6 SOUTH PASEADENA, CA 91030	IM	TOMELDAN, SILVESTRE A JR 216 SD. KINGSHIGHWAY ST. LOUIS, MO 63110	AN	VAKASSI, MOHAMMAD M 2135 CEDARROYAL ST. LOUIS, MO 63131	IM
PAYOB, ANVER A 1325 S GRAND BLVD ST LDUIS, MO 63104	ORS	TOMLINSON, WM L 15049 CLAYMOOR CT. APT 7 CHESTERFIELD, MO 63017	GS	VAKASSI, N 10010 KENNERLY RD. ST. LOUIS, MO 63128	PTH
PEKWANI, HIRALAL T 3555 SUNSET OFFICE DR ST LOUIS, MO 63127	OPH	TONELLI, GEO L 5723 NEOSHO ST LOUIS, MO 63109	OTO	VALACH, FRANK J 2821 N BALLAS RD ST LOUIS, MO 63131	OBG
TEMPORAL, ADELAIDE 10048 HILLTOP DR ST LOUIS, MO 63128	IM	TOOMEY, JAMES M 517 S EUCLID ST LOUIS, MO 63110	PS	VALDES, ORESTES S 1526 BOOKBINDER DR ST LOUIS, MO 63141	PD
TEMPORAL, JOSE A 12660 LAMPLIGHTER SQ ST LDUIS, MO 63128	OS	TORIN, BERNICE A 951 OLD BONHOMME ST LOUIS, MO 63132	DBG	VALKO, ROBERT J 1245 GRAHAM RD SUITE 301 FLORISSANT, MO 63031	P
TEPPER, ARNOLD 777 S NEW BALLAS RD ST LOUIS, MO 63141	IM	TORO, ENRIQUE F 3555 SUNSET OFFICE DR ST LOUIS, MO 63127	IM	VALTIERRA, CESAR A 6744 CLAYTON RD ST LOUIS, MO 63117	P
TERNBERG, JESSIE L 496D AUDUBON AVE ST LOUIS, MO 63110	GS	TRAME, ELDON A 615 S NEW BALLAS ST. LOUIS, MO 63141	IM	VAN AMBURG, ALBERT L III 100 W EUCLID SUITE 1010 ST. LOUIS, MO 63108	HEM
TESS, ALLEN F 1245 GRAHAM RD STE 411 FLORISSANT, MO 63031	DPH	TREIMAN, ROBT C 7 RADNOR RD ST LOUIS, MO 63131	IM	VAN GOIDSSENHOVEN, GUY E 1035 BELLVUE ST LOUIS, MO 63117	GE
TESS, MELVIN J 1501 SWITZER AVE ST LOUIS, MO 63147	PH	TRICO, JOSEPH F OCEAN REEF CLUB 13 CALDOSA RD KEY LARGO, FL 33037	GP	VAN MATRE, REBER M 1436 SHERIDAN ST NW WASHINGTON, DC 20011	P
THALE, THOS R 11 S. MERAMEC SUITE 1000 CLAYTON, MO 63105	P	TRISKA, ROLAND A 533 COUCH KIRKWOOD, MO 63122	PD	VAN NORMAN, ROBT T 6651 CHIPPEWA ST LOUIS, MO 63109	PS
THAWLEY, STANLEY BARNES HOSPITAL PLAZA ST LOUIS, MO 63110	OTO	TRDTTA, PHILIP C 1578 FOXHAM DR. CHESTERFIELD, MO 63D17	DR	VANDIVORT, PAUL M 1221 S GRAND ST LOUIS, MO 63104	P
THIEL, JOHN A 621 SDUTH NEW BALLAS RD ST LDUIS, MO 63141	D	TROTTER, FRANCIS O 6150 OAKLAND ST LOUIS, MO 63139	R	VANDOVER, JOHN T 3 GRANTWOOD LANE ST LOUIS, MO 63123	GP
THIELE, BELMONT R 4511 FOREST PARK ST LOUIS, MO 63108	GS	TROTTER, JOHN L 660 S. EUCLID ST. LOUIS, MO 63110	N	VANNIER, MICHAEL W 510 S. KINGSHIGHWAY ST. LOUIS, MO 6311D	R
THIERAUF, CHAS G 9444 SUNNY CREEK ST LOUIS, MD 63127	R	TRUEBLOOO, ALVA C 325 N KIRKWOOD RD ST LOUIS, MO 63122	OBG	VARDELEON, RDGELIO V 327 CONWAY LAKE DR ST LOUIS, MO 63141	GS
THDMA, GEO E 3556 CAROLINE ST LOUIS, MO 63104	IM	TRUGLY, EDITH S 12 HACIENDA DR ST LOUIS, MD 63124	P	VARGAS, JAIME 1124 BRIARHURST MANCHESTER, MD 63011	P
THOMAS, GRACY 16 CHESHIRE CT. COLLINSVILLE, IL 62234	R	TRUNKO, LEO 1900 TELEGRAPH RD ST LOUIS, MD 63125	IM	VARGAS, TEODORO 319 N FIRST ST PACIFIC, MO 63069	GP
THOMAS, LEWIS J 700 S EUCLID ST-B10 COM ST LOUIS, MO 63110	AN	TSCHOE, BJONG-SUHN 112 PADDOCK RD. BELLEVILLE, IL 62223	PS	VATTEBOTT, PAUL B 55 CHAMINADE DR ST LOUIS, MO 63141	GP
THOMAS, PATRICK R 4511 FOREST PARK BLVD. ST. LOUIS, MO 63110	R	TSCHUDIN, GARLAND 2744 RUSSELL ST LOUIS, MD 63104	US	VATTEBOTT, PAUL B JR 1538 WOODLAKE DR. CHESTERFIELD, MD 63017	IM
THOMAS, ROY L 300 MANSION HOUSE CENTER APT. 1402 ST. LOUIS, MD 63102	GS	TSIFUTIS, ARGYRIDIS A 2915 TRAFALGAR DE TOWN AND COUNTR, MO 63131	PD	VAUGHAN, J R 940 GOLF COURSE DR ST LOUIS, MO 63132	OBG
THOMASSON, MARY W 525 ST FRANCOIS PLACE FLORISSANT, MO 63031	R	TUANO, ANGELO HIGHWAY 61-67 BARNHART, MD 63012	GS	VELASCO, ERNESTO T 1704 S BROADWAY ST LOUIS, MO 63104	US
THOMASSON, ROBERT E 525 ST FRANCOIS PLACE FLORISSANT, MO 63031	GS	TUCKER, DOLORES R 224 S. WOODS MILL RD. CHESTERFIELD, MD 63017	D	VELUZ, BENITO I 5203 CHIPPEWA ROOM 209 ST LOUIS, MO 63109	IM
THOMPSON, JAMES E 615 S. NEW BALLAS RD. ST. LOUIS, MO 63141	EM	TUCKER, EUGENE F 642D CLAYTON RD ST LOUIS, MO 63117	PTH	VENTUS, MANUEL A 8321 N BRDADWAY ST LOUIS, MO 63147	GS
THOMPSON, MERLYN B 522 N NEW BALLAS RD ST LDUIS, MO 63141	OBG	TUCKER, GED L 4999 BARNES HOS PL 6107 ST LOUIS, MD 63110	GS	VERDE, JULIAN N 9806 MEADOWFERN DR ST LOUIS, MO 63126	R
THURMANN, MANFRED 950 ST FRANCIS PL ST LOUIS, MO 63105	CD	TUMMURU, KODANDA R 1325 SO. GRAND BLVD. ST. LOUIS, MD 63104	AN	VEST, JAMES C 12255 DE PAUL DR STE 15 ST LOUIS, MO 63044	TS
THURSTON, DONALD L 500 SO KINGSHIGHWAY ST LOUIS, MO 63110	PD	TURGEON, RONALD P 6420 CLAYTON RD ST LOUIS, MO 63117	PTH	VIAMONTES, GLDRIA E 1360 SOUTH 5TH ST SUITE ST CHARLES, MO 63301	CHP
THYM, HENRY P 436 CORONADO DR BALLWIN, MO 63011	GS	TURNER, JAMES K 457D AUDUBON AVE ST LOUIS, MO 63110	PD	VIAMONTES, JORGE A 777 S NEW BALLAS RD ST LDUIS, MD 63141	P
TICHENOR, ROBT W BOX 8568 SAPPINGTON STA ST LOUIS, MO 63126	GP	*TURNER, TIMOTHY T 273 PENNINGTON LN CHESTERFIELD, MD 63017	GP	VIANZON, ELIZABETH R 14356 RAINY LAKE DR CHESTERFIELD, MO 63017	OBG
TIEFENBRUNN, SHARDN D BARNES HOSP. 4950 AUDUBON ST. LOUIS, MO 63110	D	TWEDELL, DONALD L 7544 W FLORISSANT ST LOUIS, MD 63136	OM	VICKAR, GARRY M 1245 GRAHAM RD RM 506 FLDRISSANT, MO 63031	P
TILLMAN, ERNEST 800 N. LINDBERGH ST. LOUIS, MO 63141	DM	UHLEMAYER, HENRY A 5203 CHIPPEWA ST ST LOUIS, MO 63109	OTO	VIDHEECHAROEN, SOMBOON 1225 GRAHAM RD FLORISSANT, MO 63031	OS
TILLMAN, MARY A 4511 FOREST PARK SUITE 201 ST LOUIS, MO 63108	PD	ULETT, GED A 6484 CLAYTON AVE. ST LOUIS, MO 63139	P	VIERS, WAYNE A 135 W ADAMS ST LOUIS, MD 63122	OTD
TINDALL, ROBT N 1 COLONY POINT DR. APT. 14C PUNTA GORDA, FL 33950	OTD	ULETT, PEARL C 6484 CLAYTON AVE. ST LOUIS, MO 63139	CHP	VIJUNGCD, HERMINIA D 115 LADUE LAKE DR CREVE COEUR, MO 63141	AN
TINDELL, ROLLINS L 1420 WEATHERBY DR. ST. LDUIS, MO 63141	DPH	UNGVARI, JOS C 6500 CHIPPEWA STE 107 ST LOUIS, MO 63109	GS	VILAR, ESTER G 1755 SO GRAND ST. LOUIS, MD 63104	PTH
TIPPETT, JACK C 6651 CHIPPEWA ST ST LOUIS, MO 63109	ORS	UPADHYAYA, D M 1706 PENSACDLA ST LOUIS, MO 63141	IM	VILAR, PIO M 4211 BAYLESS ST LOUIS, MD 63123	GS
TOBEY, ALBRO C JR. 911 S. BRENTWOOD BLVD. CLAYTON, MD 63105	OBG	UTLEY, JAMES 3737 N KINGSHIGHWAY BLV ST LOUIS, MO 63115	IM	VILLAFUERTE, NILA A 12563 HIBLER WOODS DR. ST LOUIS, MO 63141	AN
		VACCA, JDS B 3915 WATSON RD ST LOUIS, MO 63109	IM	VILLAFUERTE, RENATO G 12563 HIBLER WOODS ST LOUIS, MO 63141	PTH
		VADLAMANI, S 6651 CHIPPEWA, SUITE 218 ST LDUIS, MD 63109	GS		

VILLAMAR, ELIZABETH N 14227 RELLFOOT LAKE DR CHESTERFIELD, MO 63017	OBG	WALTMAN, STEPHEN R 342 MAGNA CARTA DR ST LOUIS, MO 63141	OPH	WENTZEL, LOUIS R 2537 HIRAM WICHITA, KS 67217	US
VILLARAMA, ANTONIO P 12864 TOPPING MEADOWS ST LOUIS, MO 63131	GS	WALTON, FRANKLIN E 25 CLERMONT LANE ST LOUIS, MO 63124	GS	WERNER, WM A 6651 CHIPPEWA ST LOUIS, MO 63109	IM
VILORIA, ALBERTO B 10260 OLDE MILLING RD ST LOUIS, MO 63131	GS	WALZ, BRUCE J 510 S KINGSHIGHWAY BLVD ST LOUIS, MO 63110	TR	WEST, JOS W 135 W ADAMS ST ST LOUIS, MO 63122	OTO
VIRANT, JOHN A 119 SPOEDE RD ST LOUIS, MO 63141	OTO	WANLESS, ROBERT C 721 E. WASHINGTON ST. BELLEVILLE, IL 62221	PS	WESTERMAN, ROBT N 6744 CLAYTON RD ST LOUIS, MO 63117	GS
VITALE, ANTHONY J 7150 NATURAL BRIDGE RD ST LOUIS, MO 63121	GP	WARD, ROBT L 2047 EMERALD CREST CT. CHESTERFIELD, MO 63017	FP	WESTRUP, ELLSWORTH A 8540 BIG BEND RD WEBSTER GROVES, MO 63119	GP
VITALE, NICHOLAS S 614 COACHLIGHT LANE HAZELWOOD, MO 63042	GP	WARREN, JAMES C 4911 BARNES HOSP ST LOUIS, MO 63110	OBG	WEYERICH, LEON F 152 LINDEN AVE CLAYTON, MO 63105	GP
VITALE, STEPHEN J 14377 WOODLAKE DR. CHESTERFIELD, MO 63017	D	WASHINGTON, WALTER 3400 N KINGSHIGHWAY BLV ST LOUIS, MO 63115	GS	WEYERICH, NOEL F 621 S NEW BALLAS RD ST LOUIS, MO 63141	IM
VITALE, THOMAS J 5878 DELOR ST LOUIS, MO 63109	GS	WASSERMAN, ALAN 615 S. NEW BALLAS RD. ST. LOUIS, MO 63141	OBG	WEYGANDT, GLENN R 10322 OXFORD HILL DR ST LOUIS, MO 63141	AN
VITALE, VICTORIA A 5878 DELOR ST. LOUIS, MO 63109	GS	WASSERMAN, HELMAN C 911 S BRENTWOOD BLVD ST LOUIS, MO 63105	OBG	WHEELER, THOMAS F 615 S. NEW BALLAS CREVE COEUR, MO 63141	EM
VITT, EDWIN F 16 HAMPTON VILLAGE ST LOUIS, MO 63109	GS	WASSERMAN, TODD H 4511 FOREST PARK BLVD. ST. LOUIS, MO 63108	TR	WHITE, BRUCE I 456 N NEW BALLAS RD ST LOUIS, MO 63141	PS
VIVIANO, JOS G 16 HAMPTON VILLAGE ST LOUIS, MO 63109	OBG	WATERS, HUGH R 224 S. WOODS MILL RD. CHESTERFIELD, MO 63017	IM	WHITE, NEWTON B 10004 KENNERLY RD. SUITE 225 ST LOUIS, MO 63129	ORS
VOLLMAR, LEWIS C 10004 KENNERLY RD ST LOUIS, MO 63128	D	WAXELMAN, ROGER J 309 MANCHESTER RD MANCHESTER, MO 63011	PD	WHITENER, MILES C 9440 MIDLAND ST LOUIS, MO 63114	IM
VONGSICHAKUL, SITTICHAI 1755 S. GRAND BLVD. ST. LOUIS, MO 63104	GS	WAYNE, SHERWYN J 12166 BIG BEND RD ST LOUIS, MO 63122	ORS	WHITENER, PAUL R 15201 OLIVE BLV AP 274 CHESTERFIELD, MO 63017	GP
VOTAW, ROBT E 10 WARSON TERRACE ST LOUIS, MO 63124	OTO	WEBB, PAUL B 6651 CHIPPEWA ST ST LOUIS, MO 63109	OPH	WHITESIDE, LEO A 4989 BARNES HOSPITAL PLAZA ST LOUIS, MO 63110	ORS
VOURNAS, CHRISTOPHER G 12255 DE PAUL DR SUITE BRIDGETON, MO 63044	IM	WEBBER, WM B 1035 BELLEVUE AVE ST LOUIS, MO 63117	PS	WHITTICO, JAMES M 2715 UNION BLVD ST LOUIS, MO 63113	GS
WACKER, LEO L 3563 RITZ CENTER DR ST LOUIS, MO 63125	GP	WEBER, J R 12166 BIG BEND RD ST LOUIS, MO 63122	ORS	WIANT, JAMES R 621 S NEW BALLAS RD ST LOUIS, MO 63141	PUD
WAGAN, PRIMITIVA C 300 S GRAND ST LOUIS, MO 63103	CD	WEBER, SOL 827 S HANLEY RD CLAYTON, MO 63105	IM	WIEDERSHINE, LEONARD J 522 N NEW BALLAS RD STE ST LOUIS, MO 63141	P
WAGNER, JOHN R 777 S NEW BALLAS RD ST LOUIS, MO 63141	ORS	WEE, GEO C 1033 MANCHESTER RD ELLISVILLE, MO 63011	GP	WIEGAND, HERBERT C 4989 BARNES PLAZA STE 3 ST LOUIS, MO 63110	IM
WALD, MARK S 216 S. KINGSHIGHWAY ST. LOUIS, MO 63110	IM	WEEKS, PAUL M 4960 AUDUBON AVE ST LOUIS, MO 63110	PS	WIENKE, EUGENE C 282 N BALLAS RD ST LOUIS, MO 63131	PTH
WALD, STANLEY M 4511 FOREST PARK BLVD ST LOUIS, MO 63108	IM	WEILER, THOS J 615 SOUTH NEW BALLAS RD ST LOUIS, MO 63141	OS	WILBOIS, RONALD P 2821 N BALLAS RD ST LOUIS, MO 63131	OBG
WALENTIK, CORINNE 1515 LAFAYETTE AVE. ST LOUIS, MO 63104	PD	WEINHAUS, ROBT S 868 ALBEY LANE ST LOUIS, MO 63132	P	WILKINSON, DAVID 10007 KENNERLY RD ST LOUIS, MO 63128	NS
WALKER, FRANCIS S 1035 BELLEVUE AVE ST LOUIS, MO 63117	NS	WEIR, DON C 625 SHERWOOD DR ST LOUIS, MO 63119	R	WILLIAMS, CAROL F 950 FRANCIS PL. SUITE 303 ST LOUIS, MO 63105	GYN
WALKER, HARVEY 138 N MERAMEC AVE CLAYTON, MO 63105	IM	WEIR, ROYAL A 1012 CLA TER RI DR BALLWIN, MO 63011	GS	WILLIAMS, JOSEPH 950 FRANCIS PL. ST. LOUIS, MO 63105	ORS
WALKER, J L 522 N NEW BALLAS RD CREVE COEUR, MO 63141	OBG	WELS, LANDY 11133 DUNN RD. ST LOUIS, MO 63136	PTH	WILLIAMS, PAUL A 615 S. NEW BALLAS RD. CREVE COEUR, MO 63141	FP
WALKER, WILLARD B 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	GS	WEISE, DONNA L 615 S. NEW BALLAS RD. ST. LOUIS, MO 63141	PTH	*WILLIAMS, ROBERT J 5400 ARSENAL ST. LOUIS, MO 63139	P
WALL, EMMETT D 5823 NOESHO ST LOUIS, MO 63109	IM	WEISMAN, RENATE D 500 NORTHWEST PLAZA SUITE 411 ST ANN, MO 63074	OBG	WILLIAMS, ROY J 3409 N UNION ST LOUIS, MO 63115	IM
WALL, LESTER E 533 COUCH KIRKWOOD, MO 63122	PDA	WEISS, ALAN N 4989 BARNES HOSP PLAZA SUITE 3103 ST LOUIS, MO 63110	CD	WILLIAMS, WALTER E RT #1 BOX 125W WINTER GARDEN, FL 32797	OM
WALLACK, MARC K 4960 AUDUBON AVE ST LOUIS, MO 63110	GS	WEISS, HOWARD 141 N MERAMEC AVE ST LOUIS, MO 63105	N	WILLIS, H R 646 N. KIRKWOOD RD. ST LOUIS, MO 63122	GS
WALSH, JAMES W 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	IM	WEISS, STUART 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	;	WILLMAN, MARTIN L 2860 W CLAY ST CHARLES, MO 63301	OTO
WALTER, KENNETH E 9188 RUSTICWOOD TRAIL ST LOUIS, MO 63126	CD	WELDON, CLARENCE S SUITE 3108 QUEENY TOWER 4989 BARNES HOSP PLZ ST LOUIS, MO 63110	TS	WILLMAN, VALLEE L 3660 VISTA ST LOUIS, MO 63110	TS
WALTER, WM L 135 W ADAMS ST LOUIS, MO 63122	OPH	WELDON, VIRGINIA V 500 S KINGSHIGHWAY ST LOUIS, MO 63110	IM	WILSON, KEITH S 9 CRESTWOOD DR ST LOUIS, MO 63105	IM
WALTERS, HAROLD E 6828 OAKLAND ST LOUIS, MO 63139	OM	WELGUS, HOWARD G 109 OLD OAK BALLWIN, MO 63011	D	WILSON, SUSAN L 13981 TESSON FERRY RD. ST LOUIS, MO 63128	AN
WALTERS, HENRY W 35 N CENTRAL AVE CLAYTON, MO 63105	D	WELNER, AMOS 4940 AUDUBON ST LOUIS, MO 63110	P	WILUCKI, MELVIN R 8916 GRAVOIS AVE ST LOUIS, MO 63123	GP
WALTERS, RICHARD C 7511 BIG BEND BLVD WEBSTER GROVES, MO 63119	US	WELNER, ZILA 500 S KINGSHIGHWAY ST LOUIS, MO 63110	P	WIMMER, WARREN J 3220 PARKER RD FLORISSANT, MO 63033	PD
WALTHER, ROY A 9440 MIDLAND ST LOUIS, MO 63114	OBG	WELSH, LAURENCE C 1930 UNION RD ST LOUIS, MO 63125	GP	WINDSOR, CHAS E 777 S NEW BALLAS RD ST LOUIS, MO 63141	OPH
		WENNEKER, ALVIN S 8112 DELMAR BLVD ST LOUIS, MO 63130	IM	WINER, MICHAEL H 522 N NEW BALLAS RD ST LOUIS, MO 63141	ORS

* Doctor of Osteopathy

COMPONENT SOCIETY ROSTER

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WINKLER, W. H. 3535 SO. JEFFERSON ST. LOUIS, MO 63118	FP	YASIN, FAZLE M 911 S BRENTWOOD ST LOUIS, MO 63139	P	RAYNDR, RICHARD C 370 S DDELL MARSHALL, MO 65340	GP
WINTER, JOHN H 3394 MC KEVEY RO BRIDGETON, MO 63044	IM	YATES, DARREL W 2821 N BALLAS RD ST LOUIS, MO 63131	R	REID, JAMES A 6 BEDWELL LANE BELLA VISTA, AR 72712	FP
WINTER, TYRUS D 100 N EUCLID ST LOUIS, MO 63108	OBG	YAZDI, ATAOLLAH M 16 HAMPTON VILLAGE PLAZ ST LOUIS, MO 63109	OBG	ROEHRS, MARVIN E 905 S ODELL ST MARSHALL, MO 65340	GP
WINTERS, KATHLEEN 4511 FOREST PARK BLVD ST LOUIS, MO 63108	PO	YECIES, LEWIS D 4 CAPTAIN'S WALK SETAUKET, NY 11733	IM	202—SEMO (Stoddard-New Madrid-Mississippi- Scott Counties)	
WISSMATH, FRANK S 35 N CENTRAL AVE CLAYTON, MO 63105	PD	YLAGAN, AMANOO 8548 BRYAN AVE. ST LOUIS, MO 63117	GS	AHLVIN, ROBT C DELTA COMMUNITY HOSPITAL SIKESTON, MO 63801	PTH
WISSNER, SETH E 16 HAMPTON VILLAGE ST LOUIS, MO 63109	OBG	YORE, RICHARD W 1034 S BRENTWOOD BLVO S ST LOUIS, MO 63117	TS	ASKEW, JOHN H 1012 N MAIN STREET SIKESTON, MO 63801	FP
WITHROW, DONALD 10 THORNOELL DR ST LOUIS, MO 63117	PTH	YOSELEVSKY, ROBERT 10 TAYLOR WOODS ST LOUIS, MO 63122	IM	BLANTON, JOS C 1012 N MAIN ST SIKESTON, MO 63801	PD
WITT, CLYOE M 2821 N BALLAS RO ST LOUIS, MO 63131	R	YOUNG, VERNON L 4960 AUDUBON ST. LOUIS, MO 63110	PS	BOOTH, WM V ONE MILE RD DEXTER, MO 63841	GS
WITTGEN, EDWARD M 6651 CHIPPEWA ST ST LOUIS, MO 63109	ORS	YOUNGE, WALTER A 4635 DR. MARTIN LUTHER KING ST. LOUIS, MO 63113	IM	BRUCE, LEO A 808 E WAKEFIELD SIKESTON, MO 63801	OPH
WITTLER, HARRY A 325 N KIRKWOOD RD KIRKWOOD, MO 63122	GS	YOUNGER, ANITA C 16 HAMPTON VILLAGE PLAZ ST LOUIS, MO 63109	GP	CAMPBELL, JAMES W ADVANCE, MO 63730	GP
WDCHEER, RAYMONO O 8121 PERSHING ST LOUIS, MO 63105	IM	YOUNGER, ERNEST 16 HAMPTON VILLAGE PLAZ ST LOUIS, MO 63109	GP	CATRON, DAVID O ONE MILE RO DEXTER, MO 63841	FP
WOLF, MITCHELL L 216 S KINGSHIGHWAY ST LOUIS, MO 63110	OPH	ZACK, PAUL M 1325 SOUTH GRAND ST. LOUIS, MO 63104	IM	CHOUINARD, MICHAEL P 1012 N MAIN ST SIKESTON, MO 63801	IM
WOLFE, EDWARD M 777 S NEW BALLAS RO ST LOUIS, MO 63141	D	ZAHORSKY, THEODORE S 800 S HANLEY RD-APT 3B ST LOUIS, MO 63105	PD	CDBERT, ROBT S 108 SALCEDO ROAD SIKESTON, MO 63801	R
WOLFF, DOLORES J 3 TUSCANY PARK CLAYTON, MO 63105	AN	ZEFFREN, J L 2428 WOODSON RD OVERLAND, MO 63114	IM	COMEAU, RICHARD J W GRANT-CATALPA STS OEXTER, MO 63841	GP
WOLFF, GERALD A 4999 BARNES HOSP PLZ ST ST LOUIS, MO 63110	IM	ZEIGLER, JOS M 3933 S. BROADWAY ST LOUIS, MO 63118	R	CRITCHLOW, MICHAEL E 1012 NORTH MAIN SIKESTON, MO 63801	IM
WOLFF, HAROLO D 12534 POST GROVE ST. LOUIS, MO 63141	P	ZEKERT, HORST 5203 CHIPPEWA ST LOUIS, MO 63109	IM	CRITCHLOW, WM C BOX 1068 SIKESTON, MO 63801	GP
WOLFF, PATRICIA B 3535 SO JEFFERSON ST. LOUIS, MO 63118	PD	ZIA, RASHID 915 N GRANO ST. LOUIS, MO 63106	P	DAVIS, WILBUR L 102 W COMMERCIAL ST CHARLESTON, MO 63834	FP
WOLFF, RAY J 1040 N MASON ST. LOUIS, MO 63141	P	ZIEGELMEYER, JOHN S 40 N KINGSHIGHWAY ST LOUIS, MO 63108	GP	DUNAWAY, HOWARD A P O BOX 806 SIKESTON, MO 63301	OTO
WOLFGANG, EOWIN D 4500 W PINE BLVD ST LOUIS, MO 63108	P	ZIMMERMAN, HERBERT B 456 NO NEW BALLAS SUITE 299 ST LOUIS, MO 63141	CD	DUPONT, JEAN R 1012 N MAIN ST SIKESTON, MO 63801	CD
WOOD, BENNETT R 3442 GERALDINE ST LOUIS, MO 63115	GP	ZINGALE, FRANK G 6500 CHIPPEWA ST ST LOUIS, MO 63109	U	FRAZIER, ROBT L 110 OUDLEY OR SIKESTON, MO 63801	FP
WOOD, JAMES A 141 N MERAMEC CLAYTON, MO 63105	CD	ZINK, ROBERT A 3535 S. JEFFERSON ST. LOUIS, MO 63111	FP	HACKETHORN, JOHN C 1012 N. MAIN SIKESTON, MO 63801	ORS
WOOD, JOHN A 224 S. WOODS MILL RO. CHESTERFIELD, MO 63017	IM	ZIVNUSKA, FREDERICK R RAO THER-615 S NEW BALL ST LOUIS, MO 63141	TR	HEEB, MAX A 1012 N MAIN ST SIKESTON, MO 63801	GS
WOL, GERALD 8025 OALE ST LOUIS, MO 63117	PD	ZOGRAFAKIS, GEO H 100 N EUCLID AVE ST LOUIS, MO 63108	PS	HELFRICH, LORING 1012 N MAIN SIKESTON, MO 63801	GS
WOLSEY, JOYCE E 1034 S BRENTWOOD ST LOUIS, MO 63117	N	ZUCKNER, JACK 16 OAKLEIGH LANE ST LOUIS, MO 63124	IM	HENDERSON, THOS W ONE MILE RO OEXTER, MO 63841	FP
WOLSEY, ROBT M 1325 S GRANO BLVO ST LOUIS, MO 63104	N	ZUKOWSKI, EDWARD T 88 RIVER BEND DR CHESTERFIELD, MO 63017	R	HILL, RONALD T RT 3 OEXTER, MO 63841	GS
WORD, PARKER H 3737 N KINGSHIGHWAY BLV ST LOUIS, MO 63115	OBG	ZWART, CLAUDE H 634 NORTH GRANO BLVD ST LOUIS, MO 63103	OTO	HO, GRINNY H 808 E WAKEFIELD ST SIKESTON, MO 63801	OBG
WOTAWA, WM J 3804 WILMINGTON AVE ST LOUIS, MO 63116	OBG	ZWIRN, HANS B 493 ST FRANCOIS FLORISSANT, MO 63031	PO	KAHN, JOSEPH A 1012 NORTH MAIN SIKESTON, MO 63801	PO
WULFF, GEO J 120 CAMELOT OR TAVERNIER, FL 33070	OBG	198—SALINE		*KANOALAF, FUAO H 112 S WALNUT OEXTER, MO 63841	FP
WURR, DIETER H ARNOLD MED CTR BOX 99 ARNOLD, MO 63010	GP	BAIK, KENNETH Y 917 SOUTH ODELL MARSHALL, MO 65340	GS	KUO, GONG T 103 SPRING DR SIKESTON, MO 63801	OBG
WYATT, LOIS C 103 N TAYLOR AVE KIRKWOOD, MO 63122	GP	BLALOCK, ROBT W 370 S ODELL ST MARSHALL, MO 65340	IM	MAHBOUBI, AZIZ O BOX 653 SIKESTON, MO 63801	U
YALCIN, ENVER 13070 OLO TESSON FERRY RO ST LOUIS, MO 63128	IM	BUTNER, MICHAEL R 370 S ODELL MARSHALL, MO 65340	US	MARTIN, ANDREW D 808 E WAKEFIELD SIKESTON, MO 63801	FP
YANG, CHAO-YUNG 6420 CLAYTON RD. ST. LOUIS, MO 63177	AN	KNIPSCHILLO, BEDFORO F 370 S ODELL ST MARSHALL, MO 65340	GP	MASTERS, EOWIN J 1012 N MAIN ST SIKESTON, MO 63801	FP
YANNAKAKIS, JOHN E 1245 GRAHAM FLORISSANT, MO 63031	OBG	LAWRENCE, JOHN R PROFESSIONAL BLDG ARROW ROCK, MO 65320	GP	PAGE, JESSE W 1012 N MAIN ST SIKESTON, MO 63801	IM
YANOVER, ROBERT A 224 S. WOODS MILL RO. CHESTERFIELD, MO 63017	N	MC BURNEY, CHAS A 307 N MAIN SLATER, MO 65349	FP	PFEFFERKORN, DAVID A 1012 N MAIN SIKESTON, MO 63801	IM
YANOW, MITCHELL 777 S NEW BALLAS RO ST LOUIS, MO 63141	OBG	MC CORKLE, E L MARSHALL PROF BLDG MARSHALL, MO 65340	GP	PINKSTAFF, THOS H 1012 N MAIN ST SIKESTON, MO 63801	PD
YAP, MAROONIO J 493 RUE ST FRANCOIS FLORISSANT, MO 63031	GS	PAPRECK, K T 370 S ODELL MARSHALL, MO 65340	FP	POPP, CARL G 1012 N MAIN ST SIKESTON, MO 63801	IM

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CALLIHAN, CHARLES F
WEST PLAINS, MO 65775
CHERN, MOU S
1303 JEFFERSON ST.
P.O. BOX 218
AVA, MO 65608
CHOUDHURY, M H
MANSFIELD HOSP ANNEX
MANSFIELD, MO 65704
COFFEE, AMOS L
P O BOX 160
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COOPER, CLAUDE W
204 CHESTNUT
THAYER, MO 65791
DELANY, CLARENCE L
P O BOX 1007
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DREYER, WM F
102 SW OAK CREST DR
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TEXAS CO. MEM. HOSP.
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WEST PLAINS, MO 65775
GENTRY, MARVIN C
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MOUNTAIN GROVE, MO 65711
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GP PRESTON, BRUCE E
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CABOOL, MO 65689
GP WALKER, AMBROSE T
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THAYER, MO 65791
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214 MAIN ST
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GP BROWNSBERGER, ROBT H
APPLETON CITY, MO 64724
DR CANTRELL, OCH T
706 SOUTH HIGH
BUTLER, MO 64730
GP DAVIS, C B
824 S ADAMS
NEVADA, MO 64772
GS EKLUND, ALFRED W
405 CEDAR ST
PLEASANT HILL, MO 64080
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GP FREIN, DONALD E
111 S LEXINGTON
HARRISONVILLE, MO 64701
FP GARWOOD, JAN D
900 SOUTH ADAMS
NEVADA, MO 64772
GP GERH, LOUIS E
BATES COUNTY HOSP
615 NURSERY
BUTLER, MO 64730

GS GREENLUND, NELSON C
900 S ADAMS
NEVADA, MO 64772
FP HANSEN, ARTHUR L
225 N MAIN ST
BUTLER, MO 64730
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911 COUNTRY CLUB
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NEVADA, MO 64772
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GP STROBACH, ROBT L
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IM SUWANABHAND, CHALAW
200 WEST CHESTNUT
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1980-1981 Policy Manual of the Missouri State Medical Association

This manual shall be a guide for MSMA members to the stand taken by the House of Delegates of the Missouri State Medical Association on issues involving Association policy.

The manual will be updated and revised according to House actions. The date in parentheses following each policy statement denotes the year it was adopted by the House.

Abortion

An abortion should be considered illegal if performed by anyone other than a licensed physician in a place other than a licensed hospital. (1970)

Acupuncture

The MSMA urges the Missouri State Board of Registration for the Healing Arts to utilize such legal and statutory powers as may be available to declare that the principles apparently involved in the practice of acupuncture and shiatsu, if found to be scientifically valid and medically beneficial would fall under the definition of the practice of medicine. (1973)

Alcoholism — Adjunctive Treatment

The MSMA supports the use of the adjunctive treatment resources of Alcoholics Anonymous, Al-Anon, Ala-Teen and the National Council of Alcoholism local affiliate by physicians in treating patients. (1979)

Alcoholism — Pharmacy Liaison

The MSMA supports a closer cooperation between physicians and pharmacists in a public education program regarding the problem of abuse of legally prescribed drugs and alcohol. The professional education of physicians and pharmacists should include courses in these areas. (1979)

Alcoholism — Public Education

A uniform policy regarding alcohol and drug abuse education in schools is supported. In-depth education should be provided to Driver Education classes regarding drug and alcohol abuse as related to traffic safety. (1979)

Armed Services

The MSMA encourages the Department of De-

fense to take steps to attract physicians to serve in the Armed Forces Reserve. Physicians should be utilized according to their capabilities and training and compensated appropriately for their time. (1979)

Board of Healing Arts

The State Board of Healing Arts should be provided with a wide range of discipline powers including requiring errant doctors to seek counseling or additional education. Also, every state should be informed when any doctor has his license suspended, revoked or is placed on probation. (1976)

The MSMA opposes any legislation which would dilute the licensing power of the State Board of Registration for the Healing Arts to license those physicians of good ethical and moral character. (1975)

Certificate-of-Need

Any Certificate-of-Need law in Missouri should completely exempt private physicians and their offices from provisions of the legislation and contain a dollar limit of at least \$500,000 before a Certificate is required in remodeling or constructing of health care facilities. (1976)

Chemotherapeutic Costs

The MSMA should sponsor appropriate legislation that would make mandatory the offering of insurance coverage for reimbursement of chemotherapeutic agents, particularly on an outpatient basis. (1977)

CME Accreditation

The MSMA supports the concept that continuing medical education accrediting should be conducted at the state level with the AMA as the only CME accrediting body. (1980)

Community Professional Directories

It is not unethical for a physician to authorize the listing of his name and practice in a directory for professional or lay use which is intended to list all physicians in the community on a uniform and non-discriminatory basis. The listing shall not include any self-aggrandizing statement or qualitative judgment regarding the physician's skills or competence. The *American Medical Directory* provides an example of the kind of information that may be properly listed in national as well as community directories for health service personnel. Likewise, specialties or specialty practices listed in the *American Medical Directory* should set the pattern for specialty designations. (1975)

Confidentiality

The MSMA encourages the enactment of legislation which would fully protect the confidentiality of medical records and of professional or peer review activities which are based on review and valuation of such records. (1978)

Cost Effectiveness

The MSMA encourages individual physicians to help moderate increases in medical care costs by avoiding over-utilization and by using appropriate restraints to keep fee increases more in line with the annual cost of living increases. The Association endorses the Voluntary Effort to restrain increases in hospital costs. (1978)

Death — Definition

A person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous respiratory and circulatory functions. In the event that artificial means of support preclude a determination that these functions have ceased, a person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous brain functions. Death shall have occurred at the time when the relevant functions ceased. (1976)

Drugs — Generic Prescribing

The MSMA opposes governmental interference into the practice of medicine through mandated generic prescribing of drugs. (1976)

Drugs — Use of Combination of

The Federal Food and Drug Administration

should carefully study the prescribing habits of physicians before discontinuing a combination of drugs packaged together. (1974)

Drunk Drivers

The MSMA agrees to cooperate with the Legislature or proper agencies to remedy the dangerous problem of drunk drivers. (1974)

Education — Patient

The MSMA adopts the following guidelines for third party reimbursement for patient education:

1. The goal of patient education programs shall be to improve health and the delivery of health care services through cooperative efforts of informed patients and health professionals.
2. Patient education programs shall be provided under the guidance of an educational committee comprised of members of the health professions, and administration, and consumers.
3. Patient education committees will be responsible for the establishment, maintenance, and evaluation of all patient education programs.
4. Patient education services shall consist of planned efforts, with stated goals and objectives, based upon identifiable needs of patients and the resources of the health professionals.
5. Patient education services shall be provided under the direction of a practicing physician and a trained educator and must be appropriate to the immediate health needs of the patient.
6. Participation in such programs shall be by prescription of a practicing physician and shall be documented in the patient's chart. (1975)

Education — School Health

Factual, academically founded courses should be developed and implemented by the Missouri Department of Education to teach human physiology and pathophysiology at the elementary and secondary levels of the school system. (1974)

County medical societies are urged to work with local school districts to assist in providing comprehensive health education programs and the state colleges of Missouri are urged to prepare qualified health instructors trained to integrate health concepts into all the courses they teach. (1972)

Fireworks

The MSMA supports a ban on the sale of fireworks in Missouri. (1976)

Fluoridation

The MSMA, realizing the medical importance of natural occurring fluorine taken in proper concentration into the human body, recommends the adding of fluorine to all drinking water systems in Missouri in the concentration of one part per million. (1972)

Health Systems Agencies

All physicians must be mindful of the threat to quality medical care posed by Health Systems Agencies. Physicians should provide leadership through active involvement in the area HSA. (1977)

Home Health Care

The concept of home health care and visiting nurses care as a proper and economical way to bring quality health care to Missouri citizens not requiring more expensive and acute care is favored by the Association. (1972)

Hospice

The MSMA supports legislation to encourage the establishment of physician-directed hospice care. (1978)

Hospital — Preadmission Certification

The MSMA will continue to oppose implementation of hospital preadmission certification. (1974)

Insurance — Charge for Extra Claim Forms

Physicians should feel free to charge for the additional service of filing more than one insurance claim form, especially if a different claim form is required rather than a photocopy of the original claim form. (1973)

Insurance — Maternity Coverage

The MSMA supports inclusion in all insurance policies for those in childbearing years of a clause providing complete maternity coverage.

In order to provide continuity of coverage, the following eligibility period should be written into all insurance policies concerning benefits for obstetric care: "A pregnancy which begins while the insurance is in force should be covered until the termination of the puerperium and until the newborn infant is discharged from the hospital to home care." (1974)

Insurance — Psychiatric Illnesses

The MSMA recommends that the State Commissioner on Insurance requires that all health and

accident insurance policies sold in Missouri provide coverage for psychiatric illnesses equivalent to benefits for other medical and physical illnesses. (1978)

Laboratory — Collecting Fee

The MSMA supports payment under Medicaid to the physician for his service in collecting a specimen used for tests performed in an outside laboratory. (1977)

Licensing — Felon

As a general rule, the MSMA opposes the granting of a license to practice medicine to any physician who has been convicted of a felony. (1973)

Licensing — FMGs

The MSMA endorses the policy of accepting the "Fifth Pathway" for physician licensure in Missouri. (1975)

Licensure — Federal

The MSMA opposes any moves to require Federal licensure of health manpower. (1976)

Malpractice — Countersuits

Any Missouri physician found not to be negligent in a malpractice suit shall have the assistance of the MSMA in determining if there exists a reasonable basis for the physician to commence an action for malicious prosecution arising out of such case. (1976)

Medicaid Program

The MSMA no longer endorses the Title XIX Medicaid Program because of the unreasonably low level of reimbursement for physicians' services. (1978)

Medical Examiner System

The establishment of the county medical examiner system as a replacement for the county coroner system is strongly recommended. (1971)

Motorcycle Head Gear

The MSMA urges all motorcyclists to wear protective head gear (helmets) to prevent death and disability. (1977)

MSMF Loans

The Missouri State Medical Foundation requires membership in their state medical association for those medical students eligible for membership and receiving financial assistance from the Foundation. (1980)

National Health Insurance

Any system of national health insurance must be designed with the consultation and aid of practicing physicians with the welfare of the patient as the guiding principle. A mechanism should be provided so the patient realizes the value of medical services to the point of real participation in the payment for those services. (1974)

The MSMA endorses the American Medical Association's bill as the national health insurance plan best suited to maintaining the high quality of American Medicine. (1976)

Nursing Education

The MSMA supports all present forms of nursing education as being essential to meeting the health care needs of the state and local community. (1980)

Nurse Practitioners

The MSMA supports the doctrine that physicians retain control of medical care and will challenge any person who is practicing medicine without a license, in the courts of law if necessary. (1978)

Optometrists — Drugs

The Association opposes the expansion of the Missouri Optometric Act which would allow the use of drugs in the practice of optometry. (1977)

Osteopaths — Association With

Medical doctors may consult or associate with Doctors of Osteopathy and participate in post-graduate education specifically designed for their needs. (1965)

Osteopaths — Membership

Both local and state medical societies may accept or full membership osteopathic physicians who are licensed to practice medicine in Missouri. (1970)

Physician's Assistants

The MSMA opposes state licensure or certification of additional health care personnel because there is no reason to accept a second class (second level) of medicine. (1979)

Primary Medical Care

Primary medical care shall be defined as only that care given by a licensed graduate of a medical or osteopathic school. (1977)

PSRO

The MSMA recommends a two-year trial period

for PSRO in government-owned and operated hospitals before the law is applied to the private sector. A report on the benefits derived and the problems encountered would be made following the trial period. (1975)

If the Department of Health, Education and Welfare fails to return control of PSRO to the local level, the MSMA will promote non-participation by physicians, take appropriate legal action and, if these actions are unsuccessful, will work for the repeal of Public Law 92-603. (1975)

Seat Belts

The MSMA favors passage of state laws requiring use of seat belts in motor vehicles. (1974)

Second Opinions in Surgery

The MSMA, while realizing the value of consultation, opposes the concept of mandatory second opinions and supports the position that when second or more opinions are mandated by any party that this party is responsible for any consultation fee and the choice of consultant is the responsibility of the patient and/or the attending physician. (1978)

Unpaid Accounts — Interest

It is not in the best interest of the public or the profession to charge interest on an unpaid bill or note for professional services not paid within a prescribed period of time nor is it proper to charge a patient a flat collection fee if it becomes necessary to refer the account to an agency for collection.

It is not improper, however, for a physician to add a service charge, equal to the actual cost of rebilling, on accounts not paid within a reasonable time. Patients must be notified in advance about the existence of this practice. (1975)

Utilization Review — Participation

The MSMA supports the right of individual physicians voluntarily to elect not to participate in governmental review programs which they believe conflict with the principles of good medical practice when they have no contractual or ethical obligation to such program. (1976)

Utilization Review — Reimbursement

In those hospitals which conduct utilization review of any inpatient care, compensation of physicians for such review is a legitimate expense. The cost of such review should be included in hospital rates and reimbursable costs regardless of the source of payment. (1976)

Missouri Voluntary Health Agencies and Organizations

In some instances, patients of MSMA members are eligible to receive assistance from various Voluntary Health Organizations in the state.

Assistance may be in the form of free or subsidized special equipment, rehabilitation training, counseling, specialized care and information and many other areas.

In an effort to assist MSMA members in attaining

assistance for their patients, the following list of Voluntary Health Organizations has been compiled. In some cases, a statewide organization is listed. In instances in which an organization is limited to a certain portion of the state, several organizations may be listed under one heading.

This list will be expanded and updated annually.

ARTHRITIS

Arthritis Foundation, Eastern Missouri Chapter
317 N. 11th, Suite 1117, St. Louis 63101
(314) 421-3550

Arthritis Foundation, Greater Kansas City-Western Missouri Chapter
8900 State Line, Suite 404, Leawood, Kan. 66206
(913) 649-8820

1. Literature for arthritis patients.
2. Public and professional education programs.
3. Newsletter.
4. Patient Clubs.

Arthritis Institute
2727 Main, Kansas City 64108
(816) 221-5383

1. Literature for arthritis patients
2. Public and professional education programs.
3. Newsletter.
4. Support groups.
5. Diagnosis and treatment of rheumatic diseases.

BIRTH DEFECTS

National Foundation March of Dimes
P.O. Box 1403, Columbia 65201
(314) 449-0573

1. Perinatal seminars for physicians and nurses held three times per month across the state.
2. Perinatal reprint series, articles related to the improvement of the outcome of pregnancy.
3. Limited patient aid support on chapter level.
4. Educational materials and audio-visuals for distribution through hospitals, clinics and offices to community and professionals.
5. Computer information service for providing physicians with diagnostic information.

CANCER

American Cancer Society, Missouri Division, Inc.
P.O. Box 1066, 715 Jefferson, Jefferson City 65102
(314) 636-3195

1. Trained volunteer visitation of mastectomies, ostomy patients and laryngectomies (with attending surgeon's permission).

2. Free loan of hospital beds, wheelchairs, commodes for home use.
3. Non-sterile cancer dressings.
4. Limited transportation services to and from treatment centers.
5. Limited assistance in the purchase of ostomy supplies.
6. Limited payment for pain medication (narcotics for cancer patients).
7. Educational materials and audiovisuals on cancer prevention, diagnosis and treatment for public and health professionals.
8. Seminars for health professionals to update their knowledge and role in cancer prevention, diagnosis and treatment.

CEREBRAL PALSY

United Cerebral Palsy Association of Missouri, Inc.
P.O. Box 611, Columbia 65201
(314) 449-2934

Extends services to disabled persons:

1. Developmental training.
2. Diagnosis and evaluation at 27 cerebral palsy centers.
3. Family and interpersonal counseling.
4. Preschool education.
5. Communication skills.
6. Adult day care.
7. Recreation and social group skill.

CRIPPLED CHILDREN

Easter Seal Society for Crippled Children and Adults of Missouri
8124 Delmar Blvd., St. Louis 63130
(314) 726-0465

1. Coordinates provision of services to physically handicapped through Regional Offices.
2. Information and Counseling on employment resources.
3. Variety of services including equipment and appliances, preschool programs, camping and recreation, in some areas.
4. Financial assistance for purchase of equipment and therapy on casework basis.

CYSTIC FIBROSIS

Cystic Fibrosis Foundation, Gateway Chapter
7730 Carondelet, St. Louis 63105

Cystic Fibrosis Foundation, Heart of America Chapter
7920 Ward Parkway, Room 206, Kansas City 64114
(816) 363-5636

1. Sweat testing and evaluation of Cystic Fibrosis Centers located in St. Louis, Kansas City and Columbia.
2. Assistance for drugs, laboratory work, x-rays, inhalation equipment and some hospitalization.

DIABETES

American Diabetes Association, Heart of America Affiliate
616 East 63rd, Kansas City 64110
(816) 361-3361

American Diabetes Association, Missouri Regional Affiliate
Box 11, Columbia 65201
(314) 443-8611

American Diabetes Association, Greater St. Louis Affiliate
1780 S. Brentwood Blvd., St. Louis 63144
(314) 968-3196

1. Patient education classes.
2. Professional and allied health education.
3. Summer camp for diabetic children.
4. Speakers bureau.
5. Semi-monthly magazine.
6. Literature, cookbooks available.
7. Professional referrals.
8. Screening and detection.

EPILEPSY

Greater Kansas City Epilepsy League
4049 Pennsylvania, Suite 208, Kansas City 64111
(816) 531-1247

Missouri Epilepsy Federation
2337 S. Kingshighway, St. Louis 63110
(314) 771-1212

1. Discount drug program makes anti-convulsants available at cost.
2. Consultation and training programs available on individualized basis which include medical, pharmacological and psycho-social information.
3. Counseling program including individual, family, vocational and referral to other resources.
4. Prepared written pamphlets and other materials for patients, children and family members.
5. Film library.
6. Professional education.

HEART

American Heart Association, Missouri Affiliate, Inc.
105 E. Ash, Suite 2, Columbia 65201
(314) 442-3193

1. Sponsor for medical research.

2. Sponsor educational programs on cardiovascular disease for all professionals.
3. Sponsor educational programs for public.
4. Assist in development of community service programs.
5. Referral for financial assistance or special services.

HEMOPHILIA

Bi-State Hemophilia Association
P.O. Box 22246, St. Louis 63116
(314) 771-6080

1. Free summer camp for hemophiliac children.
2. Purchase of medical supplies.
3. Loan service for whirlpool baths and crutches.
4. Sponsor hemophilia clinic at Cardinal Glennon Hospital.

KIDNEY

Kidney Foundation of Eastern Missouri and Metro East
7 North Brentwood Blvd., St. Louis 63105
(314) 863-5858

Kidney Foundation of Greater Kansas and Western Missouri
3600 Broadway, Suite 25, Kansas City, Mo. 64111
(816) 531-3760

1. Assist in providing dialysis treatment.
2. Source for referral for information.
3. Education of emergency personnel on use of artificial kidney machine.
4. Drug bank.
5. Professional Education.

LUNG

American Lung Association of Eastern Missouri
411 North 7th, St. Louis 63101
(314) 241-1554

American Lung Association of Western Missouri
2007 Broadway, Kansas City 64108
(816) 842-5242

1. Health education materials and services aimed at prevention of lung disease.
2. Publications on treatment of respiratory diseases.
3. Assistance to indigent patients for payment for diagnostic x-rays.
4. Transportation to chest clinic or hospital paid for qualified persons.

MULTIPLE SCLEROSIS

Multiple Sclerosis Society, Greater Kansas City Area Chapter
6501 Johnson Dr., Shawnee Mission, Kan. 66202
(913) 432-3926

Mid-Missouri Chapter
National Multiple Sclerosis Society
814 E. Broadway, P.O. Box 1071, Columbia 65201
(314) 875-6767

1. Weekly MS clinic at Kansas University Medical Center.
2. Patient equipment pool (purchase and loan).
3. Counseling.
4. Prevention dental clinic at University of Missouri-Kansas City weekly.
5. Home care course for family education.
6. Sexual counseling.
7. Referral to community resources.
8. Transportation.

MUSCULAR DYSTROPHY

Muscular Dystrophy Association, Inc., Greater Ozarks Chapter
308 W. Commercial, Springfield 65803
(417) 866-5117

Muscular Dystrophy Association, Inc., Missouri Valley Chapter
3435 Broadway, Suite L-9, Kansas City 64111
(816) 931-7750

Muscular Dystrophy Association
Central Missouri Chapter
811 Cherry, Room 311, Columbia, Missouri 65201
(314) 443-6013

Muscular Dystrophy Association, Inc.
309 E. 7th St., Joplin 64801
(417) 781-7571

Muscular Dystrophy Association, Inc., Mississippi Valley Chapter
1023 S. Big Bend Blvd., St. Louis 63117
(314) 644-2828

1. Free diagnostic testing for 40 neuromuscular disorders.
2. Payment for orthopedic appliances.
3. Payment for limited amount of physical and occupational therapy.
4. Payment for influenza inoculations.
5. Transportation assistance.
6. Free services supplied at outpatient clinics.
7. Genetic counseling.
8. Professional education.

MYASTHENIA GRAVIS

Myasthenia Gravis Foundation, Inc., Greater Kansas City Chapter
4949 Rockhill Rd., Kansas City 64110
(816) 276-8310

1. Outpatient clinic on referral from patient's physician for confirmation of diagnosis, consultation or patient maintenance.
2. Myasthenia gravis drug bank.
3. Professional and patient educational materials.
4. Free physician manual and nursing manual.
5. Professional educational seminar: Film and speaker provided.

GROWTH DISORDERS

Human Growth Foundation, St. Louis Chapter
Box 9959, Kirkwood 63122
(314) 429-6893

1. Counseling for families about growth disturbances.
2. Referral source for information regarding financial assistance and growth problems.
3. Assists National Pituitary Agency in collection of human pituitary glands.

RED CROSS

American Red Cross, St. Louis Bi-State Chapter
4050 Lindell Blvd.
St. Louis 63108
(314) 658-2000

American Red Cross, Greater Kansas City Chapter
3521 Broadway
Kansas City 64111
(816) 756-2365

1. Offers a number of courses to lay people, including "Preparation for Parenthood," "Multiple Sclerosis Home Care Course," "First Aid," "Cardiopulmonary Resuscitation" and "Health in the Home."
2. Vital Signs Module I and II provide a means of teaching lay persons to measure their own temperature, pulse, respiration rate and blood pressure.

RETARDED CITIZENS

Missouri Association for Retarded Citizens
230 W. Dunklin, Jefferson City 65101
(314) 634-2220

1. Clearinghouse for information on mental retardation.
2. Referral services.
3. Professional and public information and consultation available.
4. Day care centers, recreational programs and parent counseling.

SUDDEN INFANT DEATH SYNDROME

St. Louis Regional Maternal and Child Health Council, Inc.
4386 Lindell Blvd., St. Louis 63108
(314) 531-4100

1. Provides and coordinates free support services including information and counseling, to families experiencing the death of an infant due to SIDS.
2. Distributes SIDS educational materials.
3. Provides education and training to health professionals and first responders to the death of an infant (police, firemen, ambulance paramedics etc.).
4. Public information and community education.
5. Referrals to community resources.
6. Parent/peer counseling.
7. Assists in developing statewide support service for SIDS families.

"Without your help ... I simply would not have made it through medical school"

(The following letter was received from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

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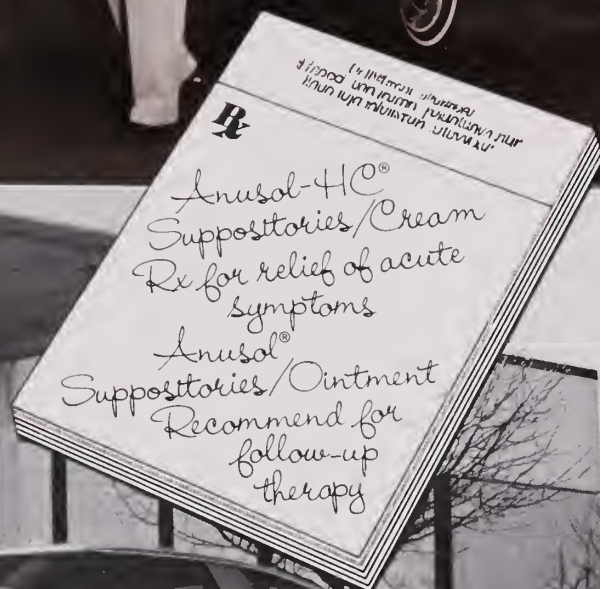
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half-life

Just one built-in advantage

Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough

Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued.

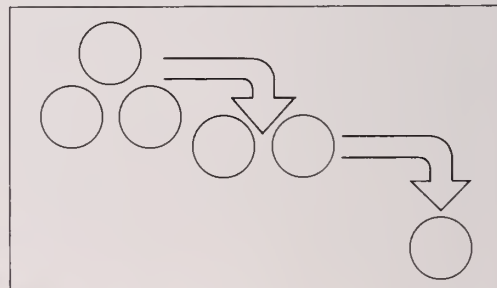
Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for

the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation

When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978



*in the management of
symptoms of anxiety*

Valium®
diazepam/Roche
2-mg, 5-mg, 10-mg scored tablets

*effective therapy through
efficient pharmacodynamics*

Before prescribing, please see summary of product information on next page



Valium®

diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, atetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication. abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

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Missouri State Medical Association Announces 1981 INTRAV Adventure Programs

The Missouri State Medical Association and INTRAV are pleased to offer these outstanding travel programs in 1981. On the West Indies and South African Adventures, INTRAV will again be conducting Medical Seminars for Category II, CME credit. If you are interested in further details, please contact the Missouri State Medical Association office.



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Traveling in South Africa is like taking a world tour: landscapes change from surf-washed shores to snow-clad mountains, deserts to the wild African bushveld, prairielands to sophisticated cities.

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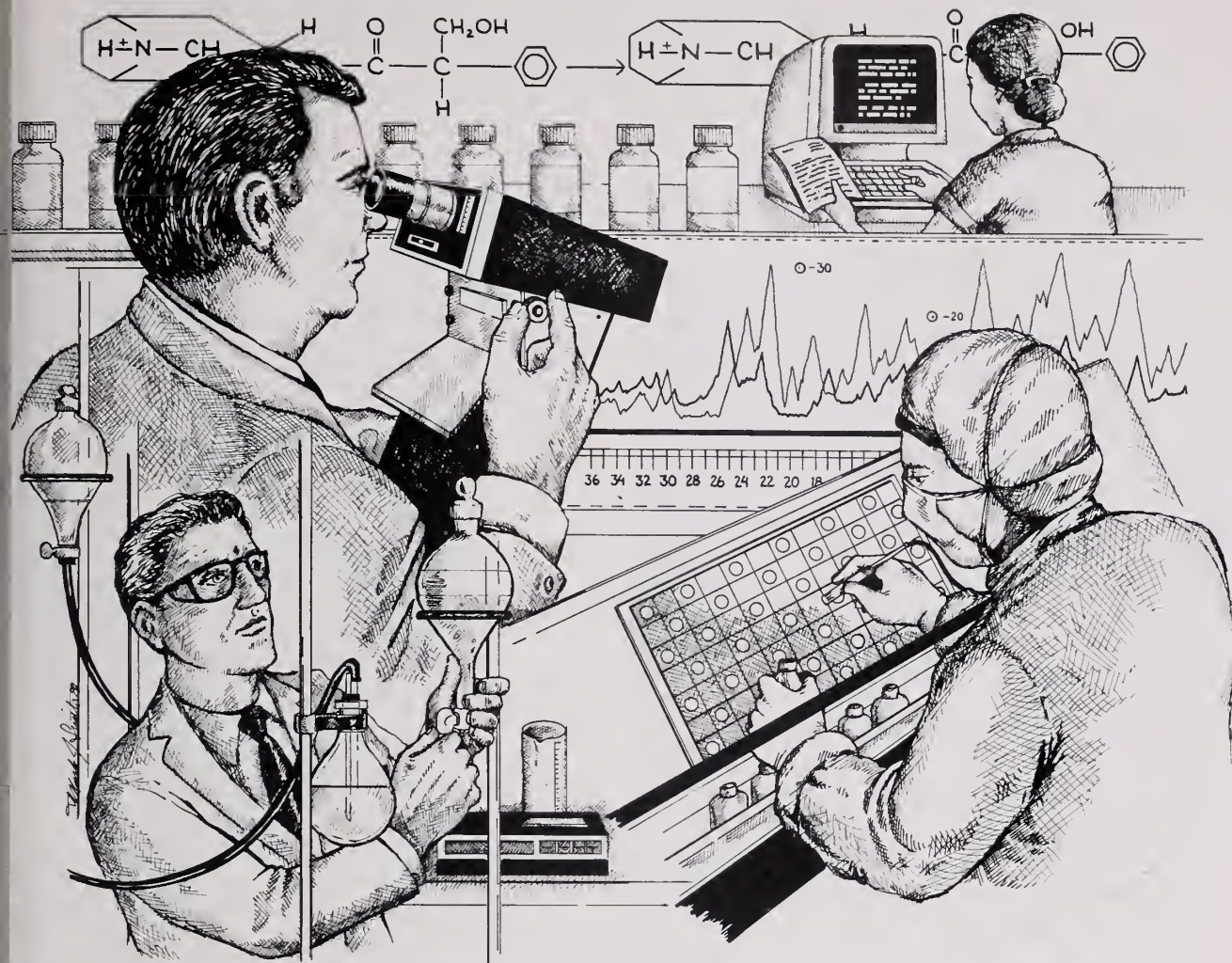
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QuinammTM

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS: For the prevention and treatment of nocturnal recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis, and static foot deformities.

CONTRAINDICATIONS: Because of the quinine content, Quinamm is contraindicated in women of childbearing potential, in pregnancy, in patients with known quinine sensitivity, and in patients with glucose-6-phosphate dehydrogenase deficiency. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine.

PRECAUTIONS: Thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients. Recovery will follow withdrawal of the medication. Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

ADVERSE REACTIONS: Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued.

DOSAGE AND ADMINISTRATION:

1 tablet upon retiring. When necessary, 1 additional tablet may be taken following the evening meal.

Product Information as of September, 1977

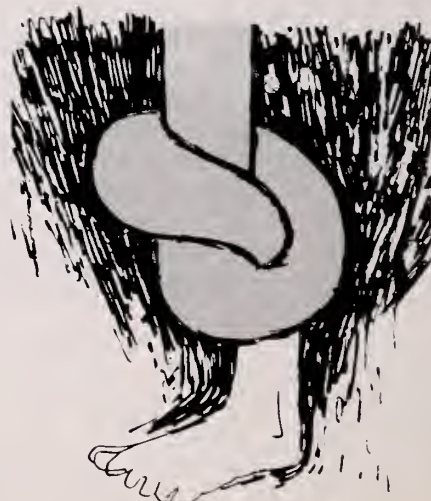
U.S. Patent 2,985,558

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QuinammTM

each tablet contains quinine sulfate 260 mg., aminophylline 195 mg.

specific therapy for painful night leg cramps

Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

See opposite page for prescribing information.



Golgi-stained neurons from the brain of a monkey.



Pharmacology Recapitulates Phylogeny

Recently discovered binding sites in the brains of primates and other vertebrates displaying high affinity for benzodiazepines have stimulated the search for an endogenous substance which may interact at these same binding sites and may also have anxiolytic properties.

While the search continues for a naturally produced anxiolytic, you can rely on Librium for predictable patient response in the treatment of anxiety.

Librium[®] _{IV}

chlordiazepoxide
HCl/Roche

5mg, 10mg, 25mg capsules

The origin of the species



Please see next page for summary of product information

Librium® 5mg, 10mg, 25mg capsules
chlordiazepoxide HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. **Oral-Adults:** Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* **Geriatric patients:** 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office on Smoking and Health
Public Health Service Rockville, MD 28057



NEWS ROUND - UP

September, 1980

Interim Session scheduled for Nov. 1-2

Component medical society delegates and alternates were recently sent their official notification of the schedule for the fifth Interim Session of the Missouri State Medical Association.

All MSMA members are invited to attend the Interim Session, which will be held November 1-2 (Saturday and Sunday), 1980, at the Holiday Inn in Joplin.

Delegate Registration will begin at 8:30 a.m., Saturday, November 1. This year the Opening Session of the House will be called to order at 11:00 a.m. Saturday. Following presentations by MSMA President Richard V. Bradley, M.D., and other reports of importance, all recommendations and resolutions will be referred to Reference Committees.

Committees will begin at 1:00 p.m., Saturday and continue as long as necessary. Reference Committee reports will be available for consideration Sunday.

MSMA members are welcome to attend all sessions of the House and to voice their opinions on resolutions and reports before the Reference Committees on Saturday afternoon.

The Final Session of the House will begin with a breakfast at 7 a.m. Sunday. This will be followed im-

mediately by House action on the reports of the Reference Committees.

The Jasper County Medical Society has planned several social activities for those attending the Interim Session. A hospitality suite will be hosted by the medical society on Friday evening. A Saturday morning brunch for the spouses has been planned by the Jasper County auxiliary. On Saturday evening, the medical society will host a dutch treat buffet dinner for physicians and their spouses.

Resolutions from component medical societies or MSMA members must be submitted to the MSMA Headquarters by October 1, to be included in the Delegate's Handbook.

Resolutions submitted after the deadline, but prior to the Opening Session, must be provided to each delegate by the sponsor at least 24 hours before the Saturday session. Introduction of late resolutions at the Opening Session requires a two-thirds vote. On Sunday, a resolution requires unanimous vote for introduction.

Those members wishing to attend should clip the accompanying Reservation Card and mail it directly to the Holiday Inn, I-44 & U.S. 71, Joplin, Missouri 64801.

Division of Health modifies immunization requirements

All children attending public, private or parochial schools in Missouri are required by law to be fully immunized or officially exempted against poliomyelitis, diphtheria, measles and rubella. These immunization requirements have recently been modified by the Missouri Division of Health, with the changes in effect for this school year.

The new requirements for immunization are as follows:

1. Diphtheria — A minimum of three doses of diphtheria toxoid is required for all school age children. The last dose must have been received at three or greater; if not, an additional dose is required. A booster dose of diphtheria is required ten years from the last diphtheria immunization.

2. Poliomyelitis — A minimum of three doses of trivalent oral polio vaccine (TOPV) is required for all school age children. However, the last dose must have been received by the child at age three or greater; if not, an additional dose is required.

3. Measles — One dose of live measles vaccine received by injection at age 12 months or greater is required of all school age children.

4. Rubella — One dose of live rubella vaccine received by injection at age 12 months or greater is required of all school age children.

HOLIDAY INN Joplin, Missouri

Missouri State Medical Association
Interim Session
November 1-2, 1980

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(Please Print or Type)

Address _____

City/State/Zip _____

Arrival Date: _____ Arrival Time: _____

Departure Date: _____ Departure Time: _____

NOTE: Reservations must be made 30 days prior to opening date of session.

Room Rates: Single \$26.50 — Double \$33.50

A child shall be exempted from the requirements upon certification by a licensed physician that such immunization would endanger the child's life or if in the physician's medical judgment, the child has become naturally immune to a specified disease by virtue of having had that disease.

A child may also be exempted if one parent or guardian objects in writing to the school administrator

Continued on next page

Voluntary Effort continues to be successful

Recent figures have shown that physicians have made significant contributions to efforts to contain rising health care costs. Physicians and hospitals working through the Voluntary Effort to Contain Health Care Costs have not only proven successful in the fight against inflation, but have also shown that federal controls are not necessary. However, despite the program's success, physicians can still play an even greater role in slowing the rate of increase, and they are being urged to do so.

Three years ago, the American Medical Association became a partner in a national effort to slow the rate of increase in health care expenditures. Since then, physicians and hospitals have been responsible for helping the Voluntary Effort to save more than \$4 billion in health care costs, despite increasing inflation. Since its inception the VE has been successful in lowering the rate of increase for hospital expenditures each year. In fact, in 1979 the rate of increase fell below the general rate of inflation, which was a significant improvement over previous years.

At the same time, the VE has proved to be an effective argument against government regulation of the health care industry. Last fall, the U.S. House of Representatives voted to endorse the Voluntary Effort instead of approving a federally legislated cost containment program. However, this does not mean that the

Voluntary Effort's battle is over. Health care costs are still high, and government regulation remains a threat so doctors and hospitals must continue their efforts.

Although physicians fees represent only 19 percent of the total health care dollar, physicians are responsible for making decisions that control 50 to 80 percent of that dollar. Doctors have already voluntarily lowered their fee increases, and through their actions they can help reduce the cost of health care even further.

Here are cost containment ideas from the AMA:

- When referring a patient to another doctor, send all reports (lab tests, x-rays) to the other physician to avoid costly duplication.
- Know the cost of diagnostic tests and x-rays.
- Know the cost of medications that you prescribe.
- Schedule diagnostic tests and other procedures on an out-patient basis when possible.
- Use preprinted forms whenever possible instead of letter writing.
- File insurance forms promptly.
- Deposit patient payments on a daily basis. Deposits to a savings account maximize the interest on the money earned.
- Provide a patient information booklet describing your appointment procedures, your telephone call policy, your insurance and legal form policies, your office hours and billing policy.

Physician interview program educates public

The American public wants and needs better health care education. In addition, inaccurate statements presented by the media often result in a negative public opinion of the health care profession.

In order to educate a largely uninformed public on the health care matters affecting them today, the MSMA has become involved in the Burroughs Wellcome Physician Interview Program.

The MSMA feels that physicians are the best equipped to educate the public about disease, prevention of disease, treatment of disease and the effect of government intervention on the availability of health care.

The objective of the Burroughs Wellcome program is to provide our membership with the opportunity to educate the public in health care matters while obtaining favorable media exposure through their participation. Fewer misconceptions and more realistic expectations of the health care delivery systems will help improve the climate for the practice of medicine in general.

In addition, public knowledge of medical information should lead to disease and accident prevention as well as earlier detection and treatment of serious illness.

Through this program, the Burroughs Wellcome Company is working with medical societies to establish a nationwide network of regular radio and television programs where physicians appear locally to represent their profession.

In Missouri, several local societies have already set up programs with outstanding results. Missouri physi-

cians now appear regularly on television and radio stations in Boone, Cole and St. Louis counties.

After local society participation is agreed upon, members make themselves available for appearances and interviews on assigned topics. Although the Burroughs Wellcome representative will contact the local media to set up programming, the local society is responsible for the scheduling of the physicians. A survey is usually distributed in order to determine which physicians are willing to appear and discuss each topic.

The radio interviews are usually conducted in the physicians office by the local Burroughs Wellcome representative. Suggested questions for both radio and television are provided but are not mandatory. The Burroughs Wellcome name is never mentioned on the air, instead, credit is given to the local medical society.

Through this program, television and radio programs have been established in over 20 states enabling three million people to watch or listen to local physicians each week.

Missouri physicians can do their part to educate the public on health care issues. If your local society is interested in participating in this program, please contact the MSMA Headquarters.

JCAH modifies CPR requirement

The Board of Commissioners of the Joint Commission on Accreditation of Hospitals voted recently to repeal a previous requirement mandating cardiopulmonary resuscitation (CPR) training for all members of a hospital medical staff.

The revised JCAH requirement now specifies that staff members should be encouraged to participate in pertinent self-assessment programs and in basic cardiopulmonary resuscitation training. This requirement becomes effective immediately.

The JCAH emphasizes that this action does not minimize the importance of CPR training but reflects their belief that it is inappropriate for JCAH to mandate that physicians be trained in a specific skill.

Immunization (continued)

against the immunization. However, this parental exemption must be renewed annually.

These regulations represent the minimum requirements for school attendance and do not supercede the recommendations of the American Academy of Pediatrics. The Missouri Division recommends that all children be immunized in accordance with the AAP's three part immunization schedule.

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A new directive from HHS?

Editor's Corner

Why Should I Bother When KMOX is Doing Just Great?

Ten thousand London taxi drivers have made an important decision. They have voted for their union to join a private medical insurance plan, a plan that will cost each member several hundred dollars a year. The taxi drivers would rather put their own money on the line than depend on British government medicine.

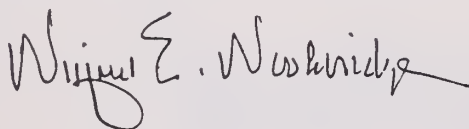
Other unions, notably the brewery workers, plumbers and electricians, have taken similar action. As we have stated in previous editorials, this movement by British trade unions away from government medicine is gaining strength. The National Health Service was, originally, one of labor's pet causes. But that traditional support is fading in the face of poor performance by government medicine.

The National Health Service is overloaded. For example, children often wait three years for tonsillectomies. Elderly patients frequently wait two years for hip replacements. And persons requiring such non-emergency procedures as operations for gallstones or hernias are also on long waiting lists. When they finally are admitted to a hospital, that institution is likely to be in chaos from labor disputes and management crises. Private rooms or even small comforts are out of the question.

The British labor movement is trying to keep more unions from defecting from the National Health system. But the trend is likely to increase, according to British insurance experts. Too many citizens, of all income levels, are simply deciding it's worth it to pay for better, private medical care.

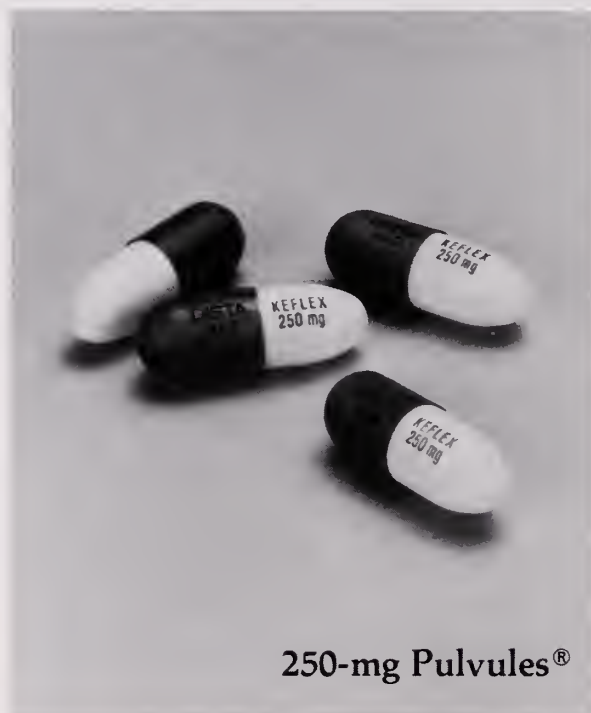
In view of the British experience, how can America seriously consider replacing its present efficient health care system with socialized medicine?

The above editorial, reprinted by permission, was broadcast by Robert Hyland, Regional Vice-President, CBS Radio Division, KMOX Radio, in St. Louis.



Wilfred E. Wooldridge, M.D.

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STEPHEN HAMBURGER, M.D., *Kansas City*

The Nitroprusside Reaction

Its Use and Limitations in the Diagnosis and Management of Diabetic Ketoacidosis

DIABETIC KETOACIDOSIS (DKA) is a common medical emergency. Although introduction of insulin has lowered morbidity and mortality of DKA significantly, there still is an approximately 5% to 10% mortality in most medical centers.^{1, 2} DKA accounts for 14% of all hospital admissions for diabetes and is the most common illness requiring hospitalization for diabetic patients under the age of 20.³ The diagnosis of DKA, in most instances, is clinically evident but requires laboratory confirmation. A positive nitroprusside reaction (Ketostix®, Acetest® tablet) is thought to be a major part of the diagnosis.⁴ In addition, some authorities have based insulin dosage in DKA on the positivity of the nitroprusside reaction.⁵ A clearer understanding of the basis and time course of the nitroprusside test would clarify its role in the diagnosis and management of DKA.

PATHOGENESIS

DKA is the extreme clinical expression of the relative or absolute lack of insulin. In insulin deficiency, mobilization of free fatty acids (ketogenic substrate) from adipose tissue is greatly enhanced. In addition, the insulin deficiency or glucagon excess, which is seen in DKA, activate ketogenic pathways in the liver.⁶ Finally, peripheral metabolism of ketones is impaired in DKA. Thus, the ketone bodies, betahydroxybutyrate (BHB), acetoacetate acid (AcAc) and acetone,

rapidly accumulate in DKA. Since BHB and AcAc are hydrogen ion-donating ketone bodies, they are intimately involved in the pathogenesis of the ketoacidotic state. Acetone is a neutral compound; it does not contribute to the acidemia but has an important role in the nitroprusside reaction and its interpretation. The nitroprusside reaction measures principally AcAc and to a much lesser extent acetone. It does *not* measure BHB even in large concentrations. Acetone levels are markedly elevated in DKA and are generally several fold higher than AcAc.⁷ Since acetone is slowly metabolized and excreted, its level may remain elevated one to two days after the blood glucose, BHB and AcAc concentrations return to normal. The ni-

A major step in the laboratory diagnosis of diabetic ketoacidosis is the nitroprusside reaction. For several reasons, the untreated patient may have a weakly positive or negative reaction. In addition, this reaction may worsen during successful treatment. Heavy reliance on the nitroprusside reaction in the diagnosis and management of diabetic ketoacidosis may lead to an under- or overestimation of the severity of the illness. Dr. Hamburger is Associate Professor of Medicine at the University of Missouri-Kansas City School of Medicine.

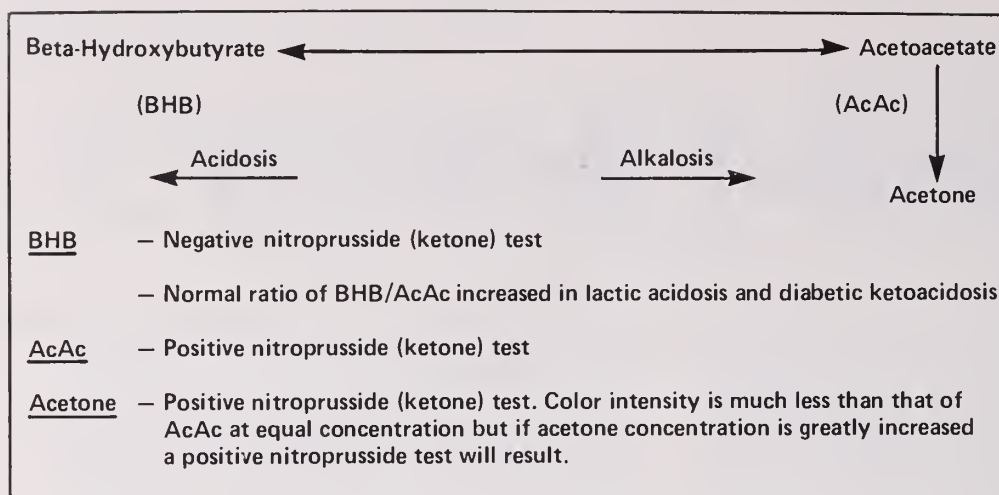


Fig. 1 Interpretation of the Nitroprusside Test.

nitroprusside reagent is only $\frac{1}{20}$ as sensitive to acetone as it is to AcAc and it is estimated that approximately 80% of the color reaction in the nitroprusside test is due to AcAc.⁸

The relationship of the ketones in DKA is necessary to understand the nature and therapeutic importance of the nitroprusside reaction (Fig. 1). Although variable, the normal ratio of BHB to AcAc is approximately 2:1. Acidemia shifts the equilibrium toward BHB while alkalemia does the reverse. In addition, the ratio of reduced and oxidized pyridine nucleotide (NADH/NAD), which is pH dependent, will determine the equilibrium. In DKA, the BHB/AcAc ratio will increase to about 3:1 and possibly higher. Thus, the nitroprusside reaction is only a qualitative estimation of the total ketone concentration.⁹

CLINICAL UTILIZATION

Diagnosis of DKA

Patients with DKA are severely hypovolemic and frequently have underlying cardiovascular disease. Therefore, they are prone to tissue hypoxemia which may lead to lactic acidosis. Depending on interpretation of the definition, lactic acidosis occurs in up to 30% of patients with DKA.^{10, 11} Lactic acidosis shifts the BHB/AcAc ratio to BHB which will make the nitroprusside reaction less reactive or negative. Marliss and associates have described two patients with DKA in whom the presence of lactic acidosis clearly produced an underestimation of the severity of the illness by the nitroprusside reaction.¹² The BHB/AcAc ratio in these two patients was 7.8 and 7.7 to 1 as compared to 3.60 to 1 in 6 patients with uncomplicated DKA. Even without simultaneous lactic acidosis, the BHB/AcAc is quite variable

and may largely consist of BHB.

A recent study has shown that the "dip and read" nitroprusside impregnated strip is unstable to humidity and air.¹³ This study was motivated by six patients in DKA who had negative nitroprusside reactions by reagent strip, but were positive by the nitroprusside reagent tablet. Thus, there are several reasons why a patient with untreated DKA may have a weakly positive or negative nitroprusside reaction. Therefore, sole reliance on the nitroprusside reaction may lead to an underestimation of the severity of the illness or to an erroneous diagnosis. Because quantitative plasma ketone measurements are not readily available, they will help only retrospectively.

Therapeutic Use

Much of the early treatment of DKA involves the expansion of the intravascular volume. With achievement of adequate blood pressure and tissue perfusion, there is resolution of simultaneous lactic acidosis. In addition, insulin and bicarbonate administration will correct the ketoacidotic state. In most cases of uncomplicated DKA, the acidotic state is corrected within 12 to 24 hours. This correction will shift the BHB/AcAc ratio to AcAc. Total circulating ketone concentrations (BHB + AcAc) drop rapidly during the treatment of DKA as does the BHB concentration.¹⁴

For several reasons, including the change in arterial pH and the initial oxidation of BHB to AcAc, the circulating AcAc concentration remains unchanged or may increase during the early hours of treatment. In a study by Stephens and associates, it was shown in a small series of patients that the AcAc concentration increased during the first four hours of treatment in most.⁹ For these

(Continued on page 560)

The Solitary Pulmonary Nodule

Analysis of 63 Cases

THE FINDING of a solitary lung nodule on a chest radiograph presents an important clinical problem. The frequency and mortality of bronchogenic carcinoma, especially among men with a smoking history, makes accurate and prompt diagnosis mandatory.

We present a retrospective analysis of 63 solitary lung nodules discovered on chest x-rays at the University of Missouri Medical Center and the Harry S. Truman Veterans Administration Hospital in Columbia. The purpose of this study is to illustrate the radiographic and clinical decisions involved in the diagnosis of the solitary pulmonary nodule and to identify some major factors affecting accuracy and speed of diagnosis.

ANALYSIS OF CLINICAL MATERIAL

The 63 solitary lung nodules described in this study were selected by using the following criteria. The cases were not consecutive and were restricted to those patients with solitary nodules on chest x-rays which eventually were investigated and for which a histologic diagnosis made. This restriction immediately skews results by eliminating nodules which, for any reason, were considered benign. Therefore our results are more heavily weighted toward malignant lesions. Histologic diagnoses of the 63 nodules are listed in

Table 1. The second restriction was that hilar masses and obstructing bronchial lesions were not included in the study. This was done to restrict investigation to only the peripheral solitary pulmonary nodule with no additional variables.

Size range of the 63 nodules included in the study was from 1 cm to 10 cm with average diameter of 3.78 cm. Distribution of location of the nodules is illustrated in Fig. 1 with locations of nodules noted as located in the upper, middle or lower third of the lung. As expected, from reports in previous literature, upper lung lesions predominate.

After the detection of a solitary nodule by chest x-ray, the first subsequent investigative study is important. These data are summarized in Table 2. More than one half of the nodules were investigated by radiographic methods, either conventional tomography or other radiographs such as follow up chest x-rays, obliques or apical lordotic views.

The procedures which were used to make definitive histologic (or cytologic) diagnosis in the nodules are summarized in Table 3. As expected, results of either bronchoscopic biopsy or thoracotomy made the diagnosis in the large majority of lesions. However, a significant number of nodules were diagnosed by other methods such as percutaneous needle biopsy, sputum cytology and biopsy of metastatic lesions. The metastatic lesions biopsied in the three cases were skin, bone and lymph node. These lesions were discovered

TABLE 1
TISSUE DIAGNOSES OF 63 PULMONARY NODULES

<i>Diagnosis</i>	<i>Number</i>
Carcinoma	
Epidermoid	23
Adenocarcinoma	12
Small cell	11
Large cell	4
Granuloma	6
Hamartoma	2
Pleural Fluid	1
Carcinoid	1
Metastatic Lesion	1
Hemorrhagic cyst	1
Infarct	1

TABLE 2
INITIAL DIAGNOSTIC PROCEDURE

<i>Procedure</i>	<i>Number</i>
Tomography	33
Other x-ray views	8
Ultrasound	1
Sputum cytology	7
Bronchoscopy	13
Thoracotomy	1

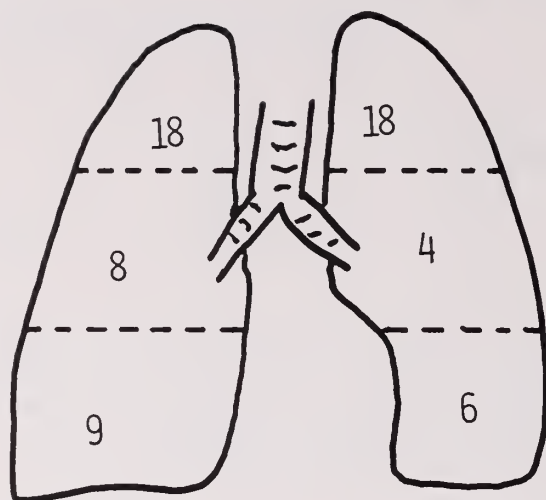


Fig. 1 Distribution of 63 lung nodules.

after the finding of the pulmonary nodule, and were biopsied because of accessibility.

Particularly interesting is the correlation of size of nodule with the effectiveness of various diagnostic methods. This is shown in Table 4. As expected, bronchoscopic effectiveness increased with the size of nodule. Thoracotomy was necessary for diagnosis of smaller lesions which could not be diagnosed by bronchoscopy.

The lag time between discovery of the nodule on x-ray and final diagnosis is also important to survival. These diagnostic lag times are charted in Fig. 2. Most of the nodules are diagnosed within four weeks of discovery on chest x-ray. However, not included on Fig. 2 are ten nodules with a diagnosis delay of ten weeks to 25 months.

TABLE 3
DEFINITIVE DIAGNOSTIC PROCEDURE

Procedure	Number
Bronchoscopy	26
Thoracotomy	26
Needle biopsy	4
Sputum cytology	4
Biopsy of metastasis	3

TABLE 4
CORRELATION OF DIAGNOSTIC PROCEDURE WITH NODULE SIZE

Size	Total #	# Malignant	Definitive Diagnostic Procedure				
			BRONCHOSCOPY	THORACOTOMY	SPUTUM	NEEDLE	MET BIOPSY
1-2 cm	24	15	5	19	0	0	0
3-4	19	18	10	4	1	2	2
5-6	10	8	5	2	2	1	0
>6	10	10	6	1	1	1	1
Totals	63	51	26	26	4	4	3

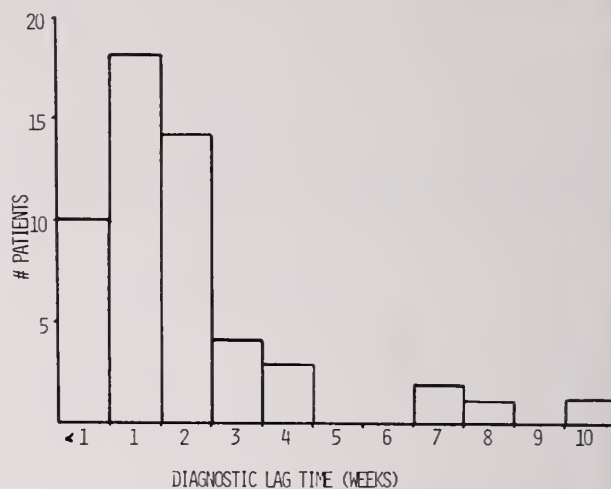


Fig. 2 Lag times to diagnosis of lung nodules.

Reasons for excessive diagnostic lag time in these patients can be divided into three categories:

1. Three patients were not considered by the radiologist to be harboring nodules of likely malignancy. Enlargement of the lesions was noted on subsequent examination.
2. Six patients were recommended for follow-up, but this was not immediately done.
3. One patient refused investigation but voluntarily returned for evaluation at a later date when he became symptomatic.

DISCUSSION

The x-ray discovery of a solitary lung nodule makes necessary a number of immediate decisions before further diagnostic evaluation is warranted. These decisions involve the appearance of the nodule on the current radiograph, as well as change in size when compared with any previous radiograph. Lack of increase in size over a two-year period is considered by most investigators to be presumptive evidence of a benign lesion.¹ If no previous films are available, the presence of calcification within a nodule strongly suggests a benign diagnosis, such as a granuloma or hamartoma.

Conventional tomography is valuable in two

ways. First, it will often demonstrate small intralesional calcifications not well seen on plain radiographs. Second, it allows better delineation of lung nodule morphology so that signs of malignancy such as a poorly defined or lobulated border can be appreciated. Sindelar *et al*² documented the superiority of tomography over plain chest films in delineating nodules. Hilar and mediastinal tomography or thoracic computed tomography may be useful if resection is considered.

Most clinicians feel that investigation of a suspicious lung nodule should be done with the least invasive method possible. With the exception of very small or peripherally placed nodules, most lung lesions are accessible with biopsy forceps or brushings through the flexible fiberoptic bronchoscope. Radke *et al*³ found that the greatest limiting factor in bronchoscopic diagnosis was lesion size. Lesions greater than 2 cm in size, even when peripheral, were diagnosed 64% of the time. Similar results in bronchoscopic diagnosis of peripheral lung lesions were obtained by Cortese *et al*.⁴ In the present series, the overall diagnostic yield of lesions bronchoscope was 26 of 45 or 58%. For lesions larger than 2 cm in diameter, the percentage yield increased to 21 of 32 or 66%.

Nodules which are fairly large and located peripherally in the lung field may be amenable to transthoracic needle biopsy. Sinner⁵ described results of more than 5,300 needle biopsies of selected lung nodules and obtained cytologic diagnoses of 90% of cases. In this study, needle biopsy was done only four times and malignancy proven in each case. The major complications of the procedure, pneumothorax and bleeding, limit its usefulness to the peripheral nodule. In Sinner's study,⁵ pneumothorax was a complication in 27% and bleeding in 11% of the cases. In the present study, the only complication was that of minimal bleeding in one patient.

A significant number of nodules are not diagnosed by the above mentioned noninvasive methods. These necessitate thoracotomy with open lung biopsy. However, many clinicians feel that open lung biopsy should be the initial procedure.⁶ The advantages of this approach in-

This is a retrospective analysis of a series of 63 solitary lung nodules found on chest x-rays at the University of Missouri-Columbia Medical Center and Harry S. Truman Veterans Administration Hospital. The authors discuss the diagnostic approach to this problem and cite factors that delay early diagnosis. Drs. Francis and Maltby are from the Department of Radiology at the Medical Center.

clude accuracy, avoidance of lengthy delay in diagnosis, and the possible likelihood of diagnosis and treatment in a single procedure.

Table 5 shows that a definitive diagnosis was made by thoracotomy in 14 patients with previous negative or inconclusive bronchoscopy as well as in 12 patients without previous bronchoscopy.

Improved communication between radiologist and clinician regarding the presence and/or significance of lung nodules can lead to earlier diagnosis. Communication failure can exist for several reasons. In a center with a large outpatient population, x-ray reports, as well as other information, are occasionally delayed in reaching the patient's chart and are sometimes not seen by the clinician. Continuity of patient care sometimes suffers due to frequent rotation of residents as well as staff physicians. Even with optimum communication, pressing clinical problems of a patient may cause unavoidable delays in workup of nodules. Patient noncompliance may be a problem.

Suggested ways in which the radiologist may improve communication with clinicians and which have been implemented at this institution involve two major areas. First, upon noting a suspicious nodule on chest x-ray, the radiologist should immediately contact the clinician by telephone and communicate the presence of a nodule. Second, in order that reports not simply

TABLE 5
THORACOTOMY RESULTS

	Benign	Malignant
Without previous bronchoscopy	8	4
With previous bronchoscopy	4	10

IMPORTANT: PLEASE NOTE

OR

CARCINOMA UNTIL PROVEN OTHERWISE

Fig. 3 Suggested eye-catching report headings.

be glanced at and information overlooked, reports of films with suspicious findings should contain an eye-catching or bold-faced phrase. Possible examples are shown in Fig. 3.

CONCLUSIONS

The diagnosis of the solitary lung nodule requires a combined approach involving a variety of methods. Radiologic methods, including conventional tomography, are most used with those nodules which have features most consistent with malignancy. Flexible fiberoptic bronchoscopy provides a relatively noninvasive means of diagnosing most nodules, especially those which are not too small or peripheral in location. Many large peripheral nodules can be diagnosed using percutaneous transthoracic needle biopsy. Thoracotomy with open biopsy remains the definitive diagnostic (and often therapeutic) tool. It is used either as a primary procedure or after failure of other methods to yield a tissue diagnosis.

In summary, the foregoing retrospective study

of 63 lung nodules found on chest x-ray illustrates the radiologic and clinical decisions necessary to achieve diagnosis, as well as the usual diagnostic methods used at this and other institutions. Some possible factors delaying diagnosis are identified and suggestions for possible improvement are given.

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Nitroprusside Reaction

(Continued from page 556)

reasons, the BHB/AcAc ratio will fall during early treatment. In addition, Sulway and Malins have shown that acetone levels are markedly elevated in patients with DKA and may remain elevated for as long as 42 hours after treatment is begun.⁷ When present at a concentration of greater than 5mM (which was present in the majority of patients in Sulway and Malins report), acetone may produce a positive nitroprusside reaction. Thus, a nitroprusside reaction may become more strongly positive during successful treatment of DKA. Careful clinical and laboratory monitoring of the patient will put the worsening nitroprusside reaction into proper perspective. The nitroprusside reaction is a poor indication of the patient's response to therapy in DKA.

SUMMARY

DKA may be defined as a state of relative or absolute insulin deficiency which results in an excessive ketone concentration, a low arterial pH and a low bicarbonate concentration. Severe hyperglycemia is usually present and the nitroprusside reaction is usually positive. For several reasons, including simultaneous lactic acidosis, the nitroprusside reaction may be only weakly

positive or even negative in untreated DKA. Moreover, with adequate therapy, the reaction may actually worsen. It is important for the clinician to understand the limitations of the nitroprusside reaction so as to not place undue reliance on this test in the diagnosis and management of DKA.

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Unusual Cause of Postoperative Carotid Endarterectomy Transient Ischemic Attacks

Case Report

SINCE STROKES are the third leading cause of death in the United States, the stroke-prone population must be identified.¹ Most commonly, the onset of a completed stroke occurs within six months after the onset of transient ischemic attacks.²

While carotid endarterectomy remains an excellent means of stroke prevention, transient ischemic attacks occasionally occur in the early postoperative period most likely because of platelet aggregation at the recent endarterectomy site.³ Complete healing of the endarterectomy site is usually well established at one month. Thus, this is the rationale for discontinuing aspirin if it is not tolerated in time.

This article reports a case of recurrent postoperative transient ischemic attacks occurring 16 months after a right carotid endarterectomy. Repeat angiography failed to demonstrate stenosis or irregularity as a source of the thrombus formation. At exploration, an unusual surgical finding was documented and, most important, a stroke probably was prevented.

CASE REPORT

A 65-year-old man was admitted on April 14, 1977. Two weeks prior to admission, an episode of amaurosis fugax occurred, involving the right eye. Past history included a course of irradiation for carcinoma of the larynx in 1959.

Physical examination revealed irradiation skin changes over both sides of the neck. A grade V/VI bruit was present at the right carotid bifurcation. Cerebral angiography was performed. It showed an area of intimal irregularity above a stenotic carotid bifurcation (Fig. 1). While these changes were thought to be secondary to atherosclerosis, irradiation injury was questioned because of the intimal irregularity. On the same day, the carotid bifurcation was explored. The area of radiological intimal irregularity was seen and no evidence of intimal irregularity or ulceration was present. A right carotid endarterectomy was performed. The patient had an uneventful postoperative course.

On Aug. 4, 1978, a two-hour episode of hemiplegia occurred on the left side and led to readmission. At the time of admission, no neurological deficits were pres-

Carotid endarterectomy continues to be an excellent means for stroke prevention. Long-term follow-up evaluation is an integral part of the surgeon's responsibility. To document the need for follow-up care, the authors report an interesting case with unusual operative findings. Drs. Sauer and Previti are from the Lester E. Cox Medical Center and St. John's Medical Regional Health Center and serve as consultants for the Federal Bureau of Prisons in Springfield.

ent and no carotid bruits were heard. Cerebral angiography revealed occlusion of multiple branches of the middle cerebral artery suggestive of recurrent embolic episodes. These findings were not present on the previous angiogram. Intimal irregularity remained unchanged and total occlusion of the external carotid artery was demonstrated. The bifurcation site was widely patent and smooth (Fig. 2). We could not find a source of recurrent embolization on this angiographic study. Exploration of the bifurcation was not performed. Instead, we initiated antiplatelet therapy with 5 grains of aspirin and 25 mg of dipyridamole (Persan-



Fig. 1 Right carotid bifurcation with tight stenosis at origin of internal carotid artery. Note area of apparent intimal irregularity above stenotic bifurcation.



Fig. 2 Postoperative widely patent bifurcation with occlusion of external carotid artery. The previously noted area of intimal irregularity above the bifurcation remained unchanged from the preoperative angiogram.

tine) four times a day.

The patient was discharged on the same regimen of aspirin and Persantine until his next admission. Five weeks later, he was readmitted because of four transient ischemic attacks characterized by hemiplegia on the left side with attacks which lasted as long as 30 minutes. At that time, exploration of the carotid bifurcation was deemed urgent.

On September 14, exploration of the right carotid bifurcation was done. Again, the area of radiological intimal irregularity was seen. There was a smooth intimal lining with no evidence of ulceration. An unusual finding at the bifurcation was the presence of a small cul-de-sac at the origin of the nonvisualized portion of the external carotid artery. In the cul-de-sac were three separate thrombi which appeared to be recent (Fig. 3). Two were easily removed and the third was adherent to the intima. The orifice to the external carotid artery was closed. The arteriotomy was then closed with a venous patch graft. The postoperative course was uneventful. No further symptoms have occurred in the follow-up period of more than one year.

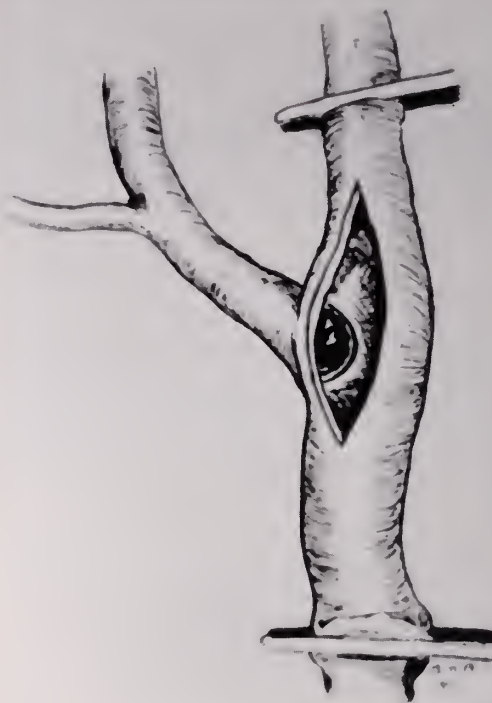


Fig. 3 Artist sketch of surgical findings of cul-de-sac with three thrombi at remaining orifice of external carotid artery. Internal carotid artery and bifurcation widely patent and smooth.

COMMENT

This case exhibits an unusual finding of recurrent intracerebral embolization of thrombi occurring 16 months postoperatively. The pattern of recurrent embolization was quite unusual because the repeated emboli leading to the patient's first operation were different from those emboli causing the recurrent hemiplegia. It is a well known fact that transient ischemic attacks generally occur over the same area of distribution.⁴ The cul-de-sac which resulted from occlusion of the external carotid artery, just beyond the orifice, was an unusual finding.⁵ A thorough endarterectomy of the external carotid artery is important but sometimes results in occlusion because all the plaque cannot be removed. Interestingly, the recurrent thrombi formed in spite of aspirin and Persantine. It was felt that exploration of the carotid bifurcation prevented a stroke in this patient.

DISCUSSION

Long-term results of carotid endarterectomy are probably better than in any other area of

vascular reconstruction and recurrent symptoms are rare.⁶ Thompson reported only seven cases of recurrent symptoms from stenosis in more than 1,300 cases in his series.⁷ Stoney and String reported 24 cases of recurrent atherosclerotic stenosis in a series of 1,654 carotid endarterectomies while Cossman and Callow reported early restenosis as a result of rapid exuberant myointimal hyperplasia in 3.6% of 361 operations.^{8, 9}

Therefore, it would seem then that stenosis, as a result of recurrent atherosclerosis and intimal hyperplasia, is the most common causes of post-operative complications following carotid endarterectomy. In the absence of symptoms, noninvasive studies on a yearly basis may help identify those patients in whom restenosis is developing and who may become symptomatic. Certainly, those who become symptomatic demand urgent angiography.

In Edwards' series, it was found that transient neurological deficits developed postoperatively in 6% of 50 consecutive patients undergoing carotid endarterectomy.¹⁰ In each case, the patient had recurrent stenosis requiring repeat endarterectomy. Our patient is very unusual because of recurrent embolization in the absence of irregularity or stenosis at the carotid bifurcation site. Angiography showed a widely patent, smooth carotid bifurcation site with occlusion of the external carotid artery. The cul-de-sac at the origin of the occluded external carotid artery served as the nidus for recurrent thrombi which were the cause of recurrent episodes of left hemiplegia.

Several conclusions may be drawn from this

case. The patient having a previous endarterectomy and in whom transient ischemic attacks again develop requires repeat angiography. Any irregularity at the bifurcation site or demonstration of occlusion of the origin of the external carotid artery should be explored immediately. While antiplatelet drugs have been the subject of much recent literature, most vascular surgeons recognize that recurrent thrombus formation occurs until the underlying cause for thrombus formation has been corrected.¹¹

In summary, carotid endarterectomy remains an excellent means of stroke prevention. Careful long-term follow up evaluation is as important as the original operation.

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Springfield, MO 65802

Current exposure to sodium and potassium is discussed in a new AMA book, *Sodium and Potassium in Foods and Drugs*. Among the subjects discussed are the technology of sodium in fermented and processed foods and the sodium content in prescription and over-the-counter drugs. The book is intended as a reference for physicians, dietitians, health professionals, and students, as well as for use in patient education programs. The AMA has testified to regulatory agencies that "some technological uses of sodium-containing substances might have to be modified or abandoned" and has suggested improved food labeling for consumers who want to reduce sodium intake beyond avoidance of table salt. Cost of the book is \$5. Write to AMA Order Dept., OP-80, P.O. Box 821, Monroe, Wis. 53566.

Laetrile in Historical Perspective

There are none so credulous as sufferers from disease. The need is urgent for legislation which will prevent the raising of false hopes of speedy cures of serious ailments by misstatements of facts as to worthless mixtures on which the sick will rely while their disease progresses unchecked. — PRESIDENT WILLIAM HOWARD TAFT, 1911

WE ARE CURRENTLY SO close to the laetrile issue that it is difficult to view it in proper perspective. We are barraged with such phrases as "freedom of choice," flooded with testimonial data from individuals who have apparently benefitted, and harangued by the demands for a "fair trial." The legitimate medical profession is accused, directly or indirectly, of being involved in a conspiracy with the pharmaceutical companies to keep people from getting well. The implication is that large sums of money can be made from the suffering of humanity.

These comments are intended to put laetrile into historical perspective and to compare the promotional techniques of laetrile supporters to those used by the promoters of dozens of other "cancer cures" of the past. The hope is that doing this will make it easier to see the laetrile issue for what it really is.

An "unproved method" of cancer management is a term that includes everything from overt cancer quackery promoted with the intent to defraud

Unproved cancer remedies and cancer quackery are centuries old. The same techniques of promotion are used today as were used 100 or more years ago. The object of this paper is to acquaint the physicians of Missouri with the techniques of these "quacks." Cancer quackery did not begin and probably will not end with laetrile. Unproved methods promoted by charlatans will probably be with us as long as there are credulous humans.

Dr. Kardinal was Director of Internal Medicine at the Ellis Fischel State Cancer Hospital and Senior Scientist at the Cancer Research Center at the time this paper was written. He is now Medical Oncologist, Ochsner Clinic, New Orleans, La.

to bizarre forms of treatment with no scientific basis that are promoted by individuals of good intention. "True believers" will often adopt an unproved method and promote it with a pseudoreligious fervor. Trapped in the center is the confused and terrified cancer patient who is barraged with information from well intentioned family members, friends, and the lay press.

The cancer patient is easy prey for the charlatan. Cancer is the most feared of all diseases and the very word implies a fatal outcome.¹ This fear is reinforced by the fact that only 40% of cancer patients are cured of their disease. The cure may come also at a high price in terms of disfiguring surgery, toxic drugs and radiation therapy. The medical profession often compounds the problem by making statements such as, "There is nothing further that can be done." This implies abandonment. There are satisfactory alternatives to "There is nothing further that can be done." Such alternatives may include phase I and phase II new agent chemotherapy drug trials and hospice programs.

The cancer patient, who is confused by the media or by well intentioned, but misinformed, family and friends or turned aside by the legitimate medical profession, is often desperate. He will search for and cling to anything that gives him hope.² The patient and his family are hardly to blame if they seek an unproved method of treatment. These patients will continue to be victims until all physicians become humanitarians in the care of the terminally ill or until a simple effective method to cure all cancer is found.

Cancer quackery did not begin, and probably will not end, with laetrile.^{3, 4}

Many of the old cancer treatments seem humorous today because they are so flagrantly irrational and literally include the "hide or hair, tooth or toenail, thymus or thyroid, liver or spleen"⁵ of any beast that may walk the face of the earth or crawl beneath it (Fig. 1). This is in striking contrast to the more sophisticated cancer quackery of today that is cloaked in pseudoscientific terminology such as glyoxylic acid, beta glucosidase, the trophoblastic theory, pangamic acid, carzodelan, CH-23, H-11, KC-555, carcalon, amygdalin and others.

FIRST GOVERNMENTAL INTERVENTION

In 1748, the House of Burgesses of the General Assembly of Virginia, presided over by George Washington and James Madison, passed a resolution appointing a committee to make a trial of Mary Johnson's "receipt for curing cancer" (Fig. 2). Johnson's cancer remedy was compounded in the following manner:

Take a Peck of Garden Sorrel, and better than half as much Celandine; beat them in a mortar and express the Juice through a fine Cloth into a Pewter Bason. Take a large handful of Persimon from the South Side of the Tree; beat it as fine as can be; pour a little Spring Water into it, and let it stand for one hour; then squeeze it as tight as can be through an open cloth into the other Juice in the Bason . . . mix them all well together and let the Bason sit in the hot Sunlight, and let it continue there until the Juice is dried away . . . it will beat into a powder in the Middle of a hot Day, but not in the Morning or Evening. . . . The best time for making the powder is in late May, or first of June.⁶

In 1754, the committee reported to the House of Burgesses that Johnson's treatment did, indeed, cure cancer. This was based upon the tes-

Fig. 2 The Virginia Almanack of 1754 describes Mary Johnson's cure for cancer. The cure consisted of garden sorrel and celandine. The testimonials of many patients apparently verified that this procedure did, indeed, cure cancer. This is a good example of the unreliability of testimonial data. (Figure is in the public domain.)

THE VIRGINIA ALMANACK,

For the YEAR of our LORD GOD 1754

Being the SECOND after BISSEXTILE, or LEAP-YEAR.

WHEREIN ARE CONTAINED,

THE LUNATIONS, CONJUNCTIONS, ECLIPSES; the Increase, Decrease, and Length of the DAYS and NIGHTS; the SUN and MOON'S Rising and Setting; the Rising, Setting, and Southing of the HEAVENLY BODIES; WEATHER; COURT DAYS; Cure of a fatal Distase; Cure of Poisons, Mrs. JOHNSON'S Cure for a CANCER; &c.

Calculated according to ART; And referred to the HORIZON of 38 Degrees North Latitude, and a Meridian of Five Hours West from the City of London. Selling Virginia, Maryland, North Carolina, &c.

WILLIAMSBURG:

Printed and Sold by WILLIAM HUNTER

DR. D. M. BYE COMBINATION OIL CURE.

Office and Laboratory,
Portsmouth Bldg.,
KANSAS CITY,
KANSAS.

Cancer
OF THE
Nose, Lip, Eye,
Ear, Breast, Womb,
or any location, internal or
external, the Oil cures.
They are painless, soothing
and quick to action.

Dr. John Morgan
Medical Director.

Dr. D. M. Bye
Discoverer.

**CANCER, TUMOR,
ECZEMA, CATARRH,
PILES and
WOMB DISEASES,
FISTULA and all
SKIN DISEASES.**

**Over 3,000 People
CURED
IN THE LAST YEAR.**

Dr. B. F. Bye
District Manager.

CANCER CURED.

The pictures on either side are those
of S. J. HALL, of Carbon, Texas, and
is 70 years old. Was afflicted with 11
Cancers for 40 years, and was cured in
30 days with the BALEMY OILS.
Read in your name to Dr. Bye, at
his above address, and secure his book
on Cancer and other diseases.

S. J. HALL
January 23, 1900.

S. J. HALL
February 23, 1899.

Fig. 1 Pre-1900 advertisement of Dr. D. M. Bye's combination oil cure for cancer. This type of "snake oil" promotion of cancer cures has given way to the pseudoscientific promotion techniques of the cancer quacks of today. (This figure appears in numerous publications and as a poster. No one appears to hold a copyright as far as the author can determine.)

In Pursuance of a Resolve of the General Assembly, the following Method of curing CANCERS, having been found efficacious by the Committee appointed to make Trial of it, is published exactly from Mrs. Mary Johnson's Receipt.

The POWDER.

TAKE a Peck of Garden Sorrel, and better than half as much Celandine; beat them in a Mortar, and express the Juice through a fine Cloth into a Pewter Bason. Take a large Handful of the inner Bark of Persimon, from the South Side of the Tree; beat it as fine as can be, pour a little Spring Water to it, and let it stand an Hour; then squeeze it as tight as can be, through an open Cloth into the other Juice in the Bason. Heat an Iron Pettle very hot, and with it run four Ounces of Alum to the Juices; mix them all well together, and let the Bason sit in the hot Sunlight, and let it continue there till the Juice is dried away, and the Powder as dry as it can be made by the Heat, and being stirred two or three Times every Day; if it be too white, or too crumbly, repeat the Operation with a small Quantity of all the Juices; if it be too hard and too sticky, repeat it with a little more Alum, and in either Case dry it as before in the Sun. When it is rightly prepared, and the Ingredients in due Proportion, it will beat to a Powder in the Middle of a hot Day, but not in a Morning or Evening; and in the Middle of the Day, when it is dry, it will be of a darkish white Colour; but in the Morning darker. The best Time for making this Powder, is in the last of May, or first of June.

The WATER.

Take the inner Bark of Sassafras Root, the inner Bark of

CANCER CAN BE CURED

I WANT TO SEND TO ALL SUFFERERS FROM CANCER, THESE TWO BIG BOOKS ABSOLUTELY FREE

and these statements prove it

Read the Proof

Back of Every Statement I make is the Word of Living Hundreds Who Have Used My Mild Combination Treatment.

Ten years of successful practice—in the Exclusive Treatment of Cancer—backed by the scores of testimonials I am able to furnish—from those who have used my Mild Combination Treatment—and are now well—should give me the right to say—Cancer Can Be Cured!

I have no stronger evidence to offer than the actual living proof of those who have suffered and are now well. Read their statements and if you want more proof write for the two large books

PROOF FROM MISSOURI

PROOF FROM ILLINOIS

PROOF FROM OHIO

Have Hope

My Professional Advice Free

Cures Effected at Home

Dr. Johnson Remedy Co. Dr. O. A. Johnson President Kansas City, Mo.

11TH AND GRAND AVENUE

Fig. 3 A 1908 advertisement of Dr. Johnson's Mild Combination Treatment for Cancer. Johnson was from Kansas City, Mo. (Figure is in the public domain.)

timonials of "many" witnesses who claimed that this preparation had cured them of cancer. Johnson, subsequently, was voted a reward of 100 pounds.

This is one of the most colorful illustrations of the unreliability of testimonial data. These kinds of testimonial data have been used over and over again for more than two centuries to support the claim that various quack treatments are effective. Testimonial data are currently the main support for the claims of apparent benefits from laetrile.

CANCER QUACKERY FROM 1880 TO 1910

There are numerous examples of unproved methods of cancer therapy and overt cancer quackery for the period prior to 1910. However, it is worth mentioning two in detail because they help to illustrate techniques still used by cancer charlatans.

First is Otto Schmidt's cancer treatment, "anti-meristem" or "cancroidin," which was promoted from 1905 to 1913.⁵ This was a vaccine prepared from an organism which was felt to be the cause of cancer. Schmidt claimed 40 cancer cures and 304 improvements "in part approaching to a cure."⁵ This drug was tested at the Middlesex Hospital and found to be of no value. Schmidt then turned to the lay press and claimed that "articles from the pens of experts" were attempting "to hush up" public knowledge of his new and wonderful cancer treatment.⁵ Schmidt was alluding to a medical

establishment conspiracy similar to the conspiracies claimed by the laetrile proponents. Schmidt also demanded "equal rights for all . . . in a matter of such eminent importance."⁵ [Sounds strangely like "freedom of choice."]

There also is the Mattei Electrohomeopathic system which was promoted from 1880 to 1906.⁵ The Count Caesar Mattei promoted the use of "green electricity" and homeopathic doses of various herbs taken orally as a cure for cancer. Demands that clinical trials be conducted were made. Public pressures were so great that, indeed, a clinical trial was conducted in Great Britain. The trial continued for one year. The treatment was found to be without benefit. Mattei then claimed that the committee evaluating his treatment had a "prejudicial attitude." One can predict that this is exactly what will happen when the results of the NCI-FDA laetrile clinical trials are reported as negative. Proponents will claim a prejudicial attitude, that the wrong diets were given or that the physicians using the drug did not "believe" in "total metabolic therapy" and so on.⁵

CANCER QUACKERY AND THE ESTABLISHMENT OF THE FDA

It is possible that the now strong role of the Federal Food and Drug Administration (FDA) in the regulation of drugs and pharmaceuticals had its origin in response to quack cancer medications.⁷ One of the even lesser known facts

Fig. 4 A 1930 advertisement of Dr. Chamlee's Cancer Specific. Chamlee was from St. Louis, Mo. (Figure is in the public domain.)

I WILL GIVE \$1000
IF I FAIL TO CURE ANY CANCER OR TUMOR
I treat before it Poisons Deep Glands or Attaches to Bone.
NO KNIFE OR PAIN, NO PAY UNTIL CURED.
NO X-RAY OR OTHER SWINDLE.
 A Pacific Island shrub or plant makes the cures—the most wonderful discovery on earth to-day. **3000 CANCERS** cured on people you can see and talk with. **ANY TUMOR, LUMP OR SORE** on the lip, face or anywhere six months is, *nearly always*, Cancer. Poor cured free if cancer is very small on face.
ANY LUMP IN WOMAN'S BREAST IS CANCER
 It does not pain until almost past cure, and if neglected it **ALWAYS** poisons the deep glands in the armpit, then it is often too late and still no pain. Deep in the shoulder death is certain. In 20 years I have cured more cancers than any other doctor living. **INVESTIGATE MY ABSOLUTE GUARANTEE. BE SURE TO GET MY 120-PAGE BOOK,** sent free, with symptoms, addresses and testimonials of thousands cured, and write to them.
DR. & MRS. CHAMLEE & CO., ["Strictly Reliable."
201 AND 203 N. TWELFTH STREET, ST. LOUIS, MO.
KINDLY SEND THIS TO SOME ONE WITH CANCER.

is that the initial action was taken against a quack cancer treatment that was based in Kansas City, Missouri (Fig. 3). In 1910, the Bureau of Chemistry (now the FDA) attempted to prosecute the promoter of Dr. Johnson's Mild Combination Treatment for Cancer. However, the Supreme Court ruled that the law did not prohibit false therapeutic claims, but only false statements about the identity or composition of drugs.

In 1911, Congress made it a crime under the Federal Food and Drug Act to label drugs with "false and fraudulent" claims of therapeutic effectiveness. The phrase "and fraudulent" made it very difficult to prosecute because it became necessary to prove that the promoter had the intent to defraud. Thus, both the clever swindler and the "true believer" could easily escape prosecution.

In the 1930s, advertisements promoting cancer cures were commonplace⁸ (Fig. 4). Again, largely in response to fraudulent claims of cancer cures, the FDA laws became more strict. In 1938, the need to prove the intent to defraud was eliminated and scientific proof of the safety of all new drugs became required. It was clearly the intent of these laws for government to protect the cancer patient from being victimized and to prevent victimization under catchy phrases such as "freedom of choice." The era of blatant cancer quackery with "snake oil" type promotion gave way to a more subtle quackery couched in pseudoscientific

terminology.

PSEUDOSCIENTIFIC METHODS

Over the past 40 years, each decade has had a new quack cancer remedy of major proportion as well as many of minor importance.⁶

1. The Koch Antitoxins

William F. Koch, M.D., Ph.D. of Detroit held the belief that cancer is a protective response to a toxic product generated within the body.^{6, 7} Koch employed a "cleansing" diet and three antitoxins: glyoxylide, malonide and benzoquinone. The main part of the therapy was glyoxylide administered by injection as a solution of one part "partially oxidized inositol" to a trillion parts of distilled water. Analysis of the glyoxylide solution by the FDA revealed it to be distilled water of extraordinary purity.

In 1943, the FDA attempted to prosecute Koch, but he was acquitted after 104 defense witnesses testified that they had received benefit from the injections. In 1948, following a government inspection of his laboratories, Koch announced that he was moving to Brazil. However, glyoxylide continued to be administered in California by Wendell Hendricks, D.O. until 1965 when Hendricks moved his practice to Tijuana, Mexico.

2. Harry Hoxsey's Herbal Tonic

The major quack cancer medication of the

1950s was the Hoxsey treatment for internal cancer.⁶⁻⁸ Hoxsey was of the opinion that cancer was a systemic disease that occurs only in the presence of a profound physiological change in the constituents of the body fluids and a consequent chemical imbalance in the organism. He felt that the body fluids could be normalized by his two medications: the "pink medicine," which contained pepsin and potassium iodide, and the "black medicine" which contained cascara and extracts of prickly ash bark, buckthorn bark, red clover blossoms, barberry root, burdock root, licorice, pokeweed and alfalfa. This formula was attributed to his great grandfather whose horse was said to have recovered from a leg cancer after grazing in a field that contained the above mentioned weeds.

Hoxsey wrote an emotionally laden book, *You*

Don't Have to Die, and presented daily radio broadcasts. It is estimated that more than 10,000 cancer victims were treated. Hoxsey was difficult to prosecute. His numerous followers launched a "crusade of prayer" and a letter campaign to Congress against the FDA. Finally in 1956, the Federal Court in Pittsburgh returned a verdict that the Hoxsey medicines for internal cancer were illegally offered as an effective treatment for cancer. Despite this, it was two more years before the Hoxsey Clinic closed permanently. The Hoxsey medicines are still available in Tijuana.

3. Krebiozen

Krebiozen, the great cancer "cure" of the 1960s, was promoted by Andrew C. Ivy, Ph.D., emeritus professor of the University of Illinois.⁷ Krebiozen supposedly was produced from an extract of the blood of 2,000 Argentinian horses that had been injected with a sterile extract of *Actinomyces bovis*. The entire supply of Krebiozen was supposed to have been brought from Argentina to the United States in a suitcase by Stevan Durovic, M.D. of Yugoslavia. More than 200,000 doses were prepared [big suitcase].

The promotional scheme of Krebiozen was similar to that used by Hoxsey as well as to that now used for laetrile. An emotionally charged book was published (Fig. 5). Its appeal was that the government must allow a "fair test," that Krebiozen should be allowed for use in "hopeless" cases, and that FDA restriction of its use would result in needless suffering and death.

The interstate commerce of Krebiozen was permanently banned in 1969, but Ivy continued to dispense Krebiozen under the name Carcalon from his office in Chicago until his death in 1977.

LAETRILE

Laetrile is currently foremost in a long sequence of unproved methods of cancer treatment. There are currently multiple pressures to legalize its use and bypass the well established means of drug evaluation. It has been claimed that the FDA's "safety" and effectiveness requirements do not apply to the terminally ill and that being terminally ill from cancer can be verified easily by the affidavit of a licensed medical practitioner.

Fortunately, reason is continuing to win. In an unanimous decision, the Supreme Court in June, 1979 held first that the federal drug law makes no exception for drugs used by the terminally ill. "To the contrary in deliberations preceding the 1938 Act, Congress expressed concern that individuals

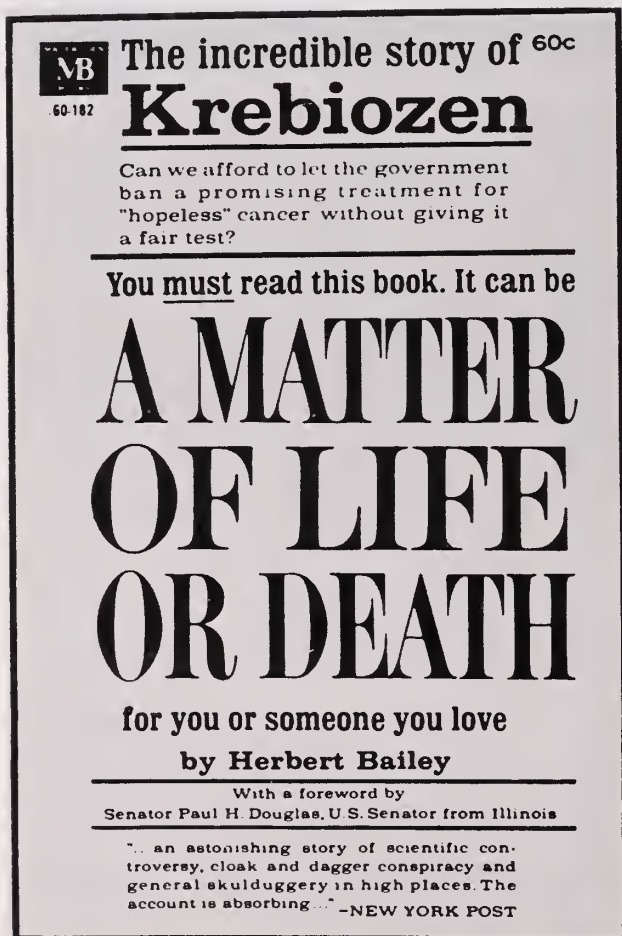


Fig. 5 Cover of Herbert Bailey's book about Krebiozen reveals the emotional appeal, the need for a "fair test" and the implication of a medical conspiracy to prevent the "cure's" use. These are the standard techniques used in promotion of quack cancer remedies. (Copyright 1958, Herbert Bailey.)

with fatal illnesses, such as cancer, should be shielded from fraudulent cures.”⁷

The Court noted “a special sense in which the relationship between drug safety and effectiveness has meaning in the context of incurable illnesses. An otherwise harmless drug can be dangerous to any patient if it does not produce its purported therapeutic effort. . . . But if an individual suffering from a potentially fatal disease rejects conventional therapy in favor of a drug with no demonstrable curative properties, the consequences can be irreversible.”^{7, 8}

“Since the turn of the century, resourceful entrepreneurs have advertised a wide variety of purportedly simple and painless cures for cancer, including liniments of turpentine, mustard, oil, eggs and ammonia; peatmoss; arrangements of colored floodlamps; pastes made from glycerin and limburger cheese; mineral tablets; and Fountain of Youth mixtures of spices, oil and suet. In citing these examples, we do not, of course, intend to deprecate the sincerity of Laetrile’s current proponents, or to imply any opinion on whether that may ultimately prove safe and effective for cancer treatment. But this historical experience does suggest why Congress could reasonably have determined to protect the terminally ill, no less than other patients, from the vast range of self-styled panaceas that inventive minds can devise.”⁷

On January 3, 1980 the National Cancer Insti-

tute announced that the FDA had approved IND (Investigational New Drug) status for laetrile. A well controlled clinical trial of laetrile efficacy is now being started in 300 terminally ill cancer patients. The first step is pyrogen testing in rabbits. The second step is cyanide toxicity testing in six patients, and then the full clinical trial. The authorization of the clinical trial does not in any way reflect a change of attitude by the FDA or the NCI, but only a yielding to public pressure. Our attitude in Missouri should remain “show-me.” The true efficacy of laetrile should be known soon, and laetrile can then be buried beside Krebiozen, the Hoxsey treatment, the Koch antitoxins, and countless others.

Pax vobiscum.

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In Memoriam

William A. Fuson, M.D., 108 Street, P. O. Box 2579, Caledonia, Mich. 49316; a graduate of Washington University, 1924; member of Grand River County Medical Society; age 86; died May 27, 1980.

J. William Cheek, 1900 S. National Ave., Springfield 65804; a graduate of the University of Tennessee, 1961; member of Greene County Medical Society; age 44; died June 5, 1980.

Charles S. Paddock, M.D., 3905 Range Line, Joplin 64801; a graduate of the University of Tennessee, 1927; member of Jasper County Medical Society; age 79; died June 15, 1980.

Paul R. Rannie, M.D., 709 S. Fuller, Independence 64052; a graduate of the University of Kansas, 1921; member of Jackson County Medical Society; age 94; died July 10, 1980.

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President's Message

Is it better to receive, comprehend and respond to a variety of useful communications than to give attention only to the needs of the day which are considered absolute?

Marconi, Bell, Edison, DeForest and Keller improved communication. Their efforts and mutual physical phenomena have filled the airways of the universe with signals which await only appropriate reception for intelligent communication. In a manner of writing, there is more material immediately available for our use than there seems to be time, desire and, perhaps, interest to comprehend and respond.

For the needs of yesteryear, three wishes may have sufficed. Today, it would take perhaps a hundred wishes to fulfill all needs and concerns. Each wish would be of importance when in focus but would be in a chance level of variable priorities.

An urgent wish of your medical societies is that we could tune you in frequently and more intently as to those external forces which are acting both in a positive and negative way on the means by which you, and we, deliver health and sickness care to our patients.

Medicine as a total community is one of prestige and great relative importance. From the teaching of better dental hygiene to the complexity of the extra corporeal heart pump, that prestige and relative importance are directed to a better way of life for our patients. As an area of prestige and importance, medicine continues to attract many different special interest disciplines. Many of these interested groups have a very valid reason to associate with medicine. Unfortunately, there are groups whose desire to associate with medicine are for nonmedical reasons of self aggrandizement or selfish gain either in money, votes, unwarranted status or, in some cases, even a desire to destroy an excellent system of medical care.

Your Medical Society from county, to state, to national level is diligent in its efforts to maintain a vigil of these forces while you take care of patients. Again, we wish that you, the individual doctor, could receive, comprehend and respond to more of the communications which we now send to you and give extra effort along with the dedicated, excellent care you are supplying to your patients.



Richard V. Bradley, M.D.

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Pays you a Cash Benefit for each day of hospital confinement due to injury or illness. . . . Pays *in addition to* other insurance you may have . . . your choice of amount \$20.00 to \$100.00 Daily Benefit. Family coverage available.

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Membership

A constant activity of the Missouri State Medical Association Auxiliary is in the field of membership. We are always trying to recruit new members, retain the old ones and reclaim those who have dropped out for one reason or another. In spite of the fact that we had 248 new members last year, we had a slight loss from 1,611 members in 1978-1979 to 1,597 in 1979-1980.

Many of our organized county auxiliaries have 100% membership. Our biggest source of untapped members lies in countries where there is no organized auxiliary. There are many doctors in Missouri whose spouses could be Members-at-Large.

What are the benefits of membership for those who might never attend a meeting unless it is the state convention? Belonging to the Auxiliary provides a special opportunity to project a positive image of physicians. A member receives information to help the MSMA in supporting sound health-related legislation for all Missourians. Members receive subscriptions to *Facets*, the AMA Auxiliary publication, and the *Missouri Auxiligram*. It is helpful to be informed on the issues facing medicine today and to have information on local health projects. The dues money itself helps state and national members work for the benefit of medicine more effectively.

We need the help of every member of the MSMA in increasing our membership. If your spouse is not a member, won't you please urge him/her to join us? Contact Mrs. William Goodson, Jr., 815 West 59th St., Kansas City, MO 64113 or your county auxiliary president.

We can do so much more together.



Mrs. Donald A. Fakhoury
President

Roman Medical Instruments

By

JAMES C. COPE, M.D., Rocheport*

THE MUSEUM OF ART AND ARCHAEOLOGY at the University of Missouri-Columbia has acquired* a set of 20 rare Roman medical instruments. Only two other such sets are in the United States.

The instruments consist of probes, lancets, a small curette, a pair of epilating forceps, an applicator, retractors, two strigils and several ligulae (Fig. 1). The strigils are narrow curved spoons used for pouring medication into an orifice and the ligulae are used to apply ointments or medications. The epilating traucoma forceps is of particular interest. Traucoma was a common disease and the removal of the inturning lashes was important to prevent blindness.

The instruments were made of bronze. They are delicately ornamented with turnings and finials. There are four different types of finials which leads the author to believe that the set of 20 may have come from different sources although marked similarity leaves no question that the instruments were used as a set.

The instruments were acquired through a dealer in London. Nothing is known about their origin or history. They have been examined by Dr. Laurence Bliquez of the University of Washington at Seattle, a specialist in Greek and Roman medicine. He was able to identify each piece and believes they date from the first century A. D.

While at the museum, Dr. Bliquez gave a lecture on Greek and Roman instruments and medical practice. The various instruments he described (not included in the M.U. set) indicated that the art of surgery was well advanced during the Roman Period.

Many of the instruments are recognizable and similar to their modern counterparts. Bone forceps and elevators or levers were common. The practice of clamping and ligating vessels was practiced. A special tube (cannolo) for draining empyema had been developed. An ingenious and unusual instrument, The Scoop of Dioclese, was



Fig. 1 (Left to right) Five of the 20 instruments are needle probe, scalpel, strigil, screw probe (probably used as an applicator when wrapped with lambs wool) and a tonsil knife.

used for removing arrowheads. The medicine dropper was a probe shaped instrument with lambs wool wrapped around the middle. When this wool was saturated with medication, finger pressure on the wool caused the medication to drop from the point of the probe.

I was allowed to handle the instruments incident to photographing them. They felt familiar in my hand, as delicate and well balanced as those I have been using all my professional life. Fancifully, I wondered if I might not be the first physician to handle them since the last owner laid them aside almost 2,000 years ago.

The instruments will be on display in the museum, Pickard Hall, on the Red Campus, University of Missouri-Columbia, from noon until 5 P.M. daily except Monday.

* Acquisition of the instruments and the presentation of Dr. Bliquez were made possible through the generosity of Columbia Clinic, Columbia, Mo. Dr. Cope is a past-president of the Missouri State Medical Association.



MSMA Members Receive Physician's Recognition Award

Ninety MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period May 16-June 30, 1980.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in *MISSOURI MEDICINE* as they are received from the AMA.

Miguel L. Abelardo, Manchester
John Aldridge, Lee's Summit
Daniel K. Barnett, Grandview
Barry J. Bass, Kansas City
Jon R. Bopp, Joplin
Robert L. Bowser, Liberty
Steven R. Brenner, St. Louis
Shael S. Bronson, St. Louis
William F. Case, Kansas City
Paul J. Centner, Kansas City
Nanjappa Chandramohan, Washington
Suthon Chatkupt, Excelsior Springs
Hillard K. Cohen, St. Ann
Guillermo Couchonnal, Kansas City
Jose C. DaSilva, St. Louis
Francis D. Dean, Fayette
Robert C. Egan, St. Louis
Raymond G. Elliott, Kansas City
Edward P. Feutz, Clayton
Donald R. Fogue, Kansas City
Fred D. Fowler, Kansas City
Jerry C. Freeman, Kansas City
Robert H. Friedman, St. Louis
George J. Fuchs, Columbia
Osamu Fukuyama, Richmond Heights
William B. Gedney, Valley Park
Lawrence D. Gelb, St. Louis
William H. Goodson, Kansas City
Rengasamy Gowdamarajan, Kansas City
Barry A. Graff, Glencoe
George T. Grossberg, Chesterfield
Ralph R. Hall, Kansas City
Eugene T. Hansbrough, Poplar Bluff
John A. Headrick, St. Louis
Marijan Herjanic, St. Louis
Samuel D. Hoepfer, Grandview
Robijn K. Hornstra, Kansas City
Lawrence M. Houston, Kansas City
Perry U. Hunsley, Branson
Judith P. Hurwitz, Kansas City
Fred Irwig, Kansas City
Michael J. Isserman, St. Louis
Akira Iwane, St. Louis
Robert J. Jones, Nevada
Longius H. Kim, Flat River

Jerry L. Kinder, Cape Girardeau
Edward H. Kowert, St. Louis
Suhas C. Lahiri, Lake Saint Louis
Luis Lau, St. Louis
John T. Lawton, Creve Coeur
Henry A. Lee, Kansas City
Carelton J. Lindgren, Kansas City
Gamaliel G. Lotuaco, Kansas City
Edwin E. MacGee, Kansas City
Dominador O. Madrid, St. Louis
James E. Meyer, Warrensburg
Shomendra K. Moitra, Memphis
Janet E. Mules, Independence
Eng Liat C. Ong, St. Louis
Robert F. Owen, St. Louis
David E. Perkins, St. Louis
Stanley S. Peterson, Springfield
John J. Phillips, Bridgeton
George S. Postma, Kansas City
Ricardo M. Ramirez, Poplar Bluff
Samudrala Ramulu, St. Louis
Michael A. Rasmussen, Kansas City
Ranga V. Reddy, St. Louis
Setti S. Rengachary, Kansas City
Woo H. Rhee, Nevada
Robert L. Rogers, Kansas City
Edwin H. Schmidt, St. Louis
Dipak C. Shah, Kansas City
Milton Shoss, Cape Girardeau
Sherman J. Silber, St. Louis
Vichien Sinsakul, St. Charles
Cyril M. Sliom, Creve Coeur
Dasari Suseela, Kansas City
David E. Thompson, Lee's Summit
Wayne K. Tice, Lee's Summit
Walter W. Tillman, Springfield
Enrique Vera, Kansas City
Gloria E. Viamontes, St. Louis
Jorge A. Viamontes, Creve Coeur
James C. Warren, St. Louis
Amos Welner, St. Louis
Zila Welner, St. Louis
Gordon F. Wise, Springfield
Thomas O. Wood, Poplar Bluff
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*Fall educational programs of interest to physicians
who treat children and/or the mother-neonate*

NEW HORIZONS IN PERINATOLOGY

October 2-3, 1980

Approved for 14 hours AMA Category 1 and AAFP Prescribed Credit

The 6th Annual Tulsa Pediatric Colloquy

THE SERIOUSLY ILL CHILD:

NEW APPROACHES TO ASSESSMENT AND MANAGEMENT

November 16-20, 1980

Approved for 23 hours AMA Category 1 and AAFP Prescribed Credit

Both to be held at the Williams Plaza Hotel in Tulsa, each of these programs features an outstanding guest faculty.

New Horizons in Perinatology: Gordon Avery, M.D., George Washington University; Emanuel Friedman, M.D., Harvard Medical School; Louis Gluck, M.D., University of California; John Johnson, M.D., Johns Hopkins Medical School; Leo Stern, M.D., Brown University; Phillip Sunshine, M.D., Stanford University; and Sumner Yaffee, M.D., University of Pennsylvania.

The Seriously Ill Child: Donald P. Becker, M.D., Medical School of Virginia; Joseph Butterfield, M.D., University of Colorado; Phillip Fireman, M.D., Pittsburgh Children's Hospital; Welton Gersony, M.D.; and Robert Winters, M.D.; Columbia University.

The physician's registration fee for each program is \$150; daily registration is available.

For more information call the Office of Continuing Medical Education at Saint Francis Hospital 918/494-1454 or write to 6161 South Yale, Tulsa, Oklahoma 74177.

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Allied Health Professionals Day — October 23, 1980

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Associate Professor of Pediatrics
Head, Auditory Division
Department of Otolaryngology
University of Colorado
Health Sciences Center
Denver, Colorado

MARY JANE PEARSON, Ph.D.
Project Coordinator,
Department of Hearing & Speech
Assistant Professor,
Department of Special Education
Kansas University Medical Center
Kansas City, Kansas

One day registration fee is \$50.00 for Physicians (October 22); \$30.00 for Allied Health Professionals (October 23); \$10.00 for students and residents of medicine and allied health fields. This includes the seminar, coffee breaks and luncheon. Advance registration is appreciated.

ACCREDITATION

AMA — 6 Category I Hours; AOA — 7 Category 2-D Hours; Amer. Acad. of Family Phy. — 6 Hours; Kansas State Board Nursing — 6 Contact Hours; Missouri State Board Nursing — 6 Contact Hours.

For additional information contact:

Program Coordinators:
Forrest H. Kendall, Jr., M.D.
1010 Carondelet, Suite 224
Kansas City, Missouri 64114
(816) 942-7200

Nimral K. Mitra, M.D.
11201 Colorado
Kansas City, Missouri 64137

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

- Oct. 30-
Nov. 1** Annual Fall Clinical Conference — K.C. Southwest Clinical Society (Alameda Plaza Hotel)
- Dec. 4-6** The Heart 1980 (Alameda Plaza Hotel)
(1981)
- Jan. 25-30** Traveling Medical Education Course — K.C. Southwest Clinical Society (Steamboat Springs, Colo.)
- Jan. 31-
Feb. 7** Medical Seminar at Sea — K.C. Southwest Clinical Society (Caribbean Cruise Leaving Miami)
- Feb. 13-14** The Long Weekend: Oncology, Immunology and Infectious Diseases (Crown Center Hotel)
- Feb. 22-
Mar. 1** Traveling Medical Education Course — K.C. Southwest Clinical Society (Nassau, The Bahamas)
- Mar. 26-28** Perspectives in Medicine — 1981 (Hyatt Regency Hotel)
- April 24-25** The Long Weekend: Gastroenterology, Pulmonary Disease and Hematology (Hyatt Regency Hotel)
- May 8-9** Geriatrics Seminar (Alameda Plaza Hotel)
- May 14-15** Surgical Problems: The Old and the New (Hyatt Regency Hotel)
- June 5-6** Symposium on Physical Fitness (Crown Center Hotel)

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
Contact: Office of CME

- Sept. 27** Hand Injuries
- Oct. 9-11** Update in Hematology/Oncology
- Nov. 5** Trauma Management (St. Louis Metropolitan Medical Society)
- Nov. 6-8** Clinical Allergy for the Practicing Physician
- Nov. 14-16** Anesthesia and the Geriatric Patient

- Dec. 4-5** St. Luke's Clinical Conference (St. Luke's Hospital)
- Jan. 4-9** Dx & Rx of Skeletal Disorders (Keystone, Colo.)
- Feb. 26-27** Clinical Topics in Pulmonary Medicine
- Mar 2-
May 18** Internal Medicine Review (Monday Evenings — Jewish Hospital)
- Mar. 12-13** Gland Rounds (What's New in Endocrinology)
- Mar. 19-20** Rheumatology for the Practicing Physician
- Mar. 27-28** Vascular Diseases
- April 5-12** Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics (Caribbean Cruise)
- April 9-10** Eighth Annual Symposium on Obstetrics & Gynecology
- May 8-9** Alumni Reunion
- May 13** Burns: The Early Days
- May 21-22** Postgraduate Course in Otolaryngology

Missouri Baptist Eye Foundation
621 S. New Ballas Rd., Suite 343
St. Louis 63141
Contact: Richard B. Oglesby, M.D.

- Oct. 5** Seminar — Neuro-ophthalmology for Clinical Ophthalmologists

University of Missouri School of Medicine
Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
Contact: William D. Bradshaw, M.D.

- Sept. 26-27** Annual Meeting of the Missouri Perinatal Association
- Oct. 3-4** Second Annual Clinical Neurology Conference
- Oct. 16-18** Second Annual Autumn Rheumatology Symposium
- Oct. 29-31** Medical Ethics Symposium
- Nov. 8-9** 21st Annual M.D. Day
- Nov. 13-14** The Physician and the Infection Control Committee
(Continued on next page)

The Edward Mallinckrodt Institute of Radiology —
Washington University School of Medicine
 510 S. Kingshighway, St. Louis 63110
Contact: Ronald G. Evens, M.D., Director

- Oct. 13 City-Wide Radiology Conference —
 Bone Radiology
- Nov. 10 City-Wide Radiology Conference —
 Detection of Abdominal Inflammatory
 Diseases
- Dec. 15 City-Wide Radiology Conference —
 Cardiovascular Computed Tomogra-
 phy
- (1981)
- Jan. 19 City-Wide Radiology Conference —
 Ultrasound in Obstetrics
- Feb. 9 City-Wide Radiology Conference
- Mar. 9 City-Wide Radiology Conference —
 Interventional Radiology
- June 13 Leroy Sante Lecture
- May 11 City-Wide Radiology Conference —
 Digital Imaging and Computers
 Radiology

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**Every Wed.
 & Fri.**

- 3:00 PM — Basic Sciences to Surgery
 Seminar
- 4:00 PM — Surgical Rounds

*Contact: Erich W. Pollak, M.D., Director of Surgical
 Education*

**First & Third
 Saturdays**

- 9:00 AM — Surgical Techniques Semi-
 nar
- 9:45 AM — Morbidity and Mortality
 Conference

10:30 AM — Surgical Grand Rounds

Every Tues. 9:00 AM — Medicine Staff Conference
 (Except second Tuesday of each
 month)

*Contact: David S. Sneid, M.D., Director of Medical
 Education*

Greater Kansas City Radiological Society
KU Medical Center
 Rainbow Blvd. at 39th, Kansas City, KS 66103
Contact: Norman L. Martin, M.D., President

- Oct. 8 GU Radiology
 (Dinner meeting, Alameda Plaza)
 4 PM — Lecture
 (St. Luke's Hospital)
- Nov. 7 Chest Radiology
 (Dinner Meeting, Alameda Plaza)
 4 PM — Lecture
 (Kansas University Medical Center)

(1981)

Jan. 22 Neuroradiology
 (Dinner Meeting, Alameda Plaza)
 5 PM — Lecture
 (St. Luke's Hospital)

Feb. 11 GI Radiology
 (Dinner Meeting, Alameda Plaza)
 4 PM — Lecture
 (Kansas University Medical Center)

Mar. 11 Nuclear Medicine
 (Dinner Meeting, Alameda Plaza)
 4 PM — Lecture
 (St. Luke's Hospital)

April 8 Bone and Joint
 (Dinner Meeting, Alameda Plaza)
 4 PM — Lecture
 (Kansas University Medical Center)

May 20 Pediatric Urology
 (With Greater K.C. Urological Society, Granada
 Royale Hotel)

Kilo Diabetes and Vascular Research Foundation
 777 S. New Ballas Rd., Suite 308 E. St. Louis 63141
 (314) 567-5522

Contact: Sharon Hoette, Program Coordinator

Nov. 7 Eighth Annual Diabetes Symposium
 (Breckenridge Inn Frontenac)

Ed Bixby Institute for Postgraduate Education
Research Medical Center
 2316 E. Meyer Blvd., Kansas City 64132
 (816) 276-4167

Dec. 3 Chronic Renal Disease
 (1981)

Feb. 4 Infectious Diseases

June 3 Lung Disease

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in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

A PSRO IS NOT a federal agency and, therefore, is not subject to the Freedom of Information Act, a U. S. District Court ruled in Philadelphia. A Philadelphia hospital filed suit in 1979 against the Philadelphia PSRO after refusal of its request under the FOI Act for virtually all physician and hospital information retained by the PSRO. In a similar case last October, a District Court ruled that data collected by a District of Columbia PSRO identifying Medicare and Medicaid practitioners and institutions was open to public disclosure under the FOI Act. In the Philadelphia ruling, the judge relied on the analysis of a March 3, 1980, U. S. Supreme Court decision, which held that federal agency status turned on whether there was "extensive, detailed, and virtually day-to-day supervision over the activities of the organization."

A NEW AMA BOOKLET, "The American Health Care System: Issues and Facts," synthesizes information on costs, the public's attitude toward medical care, national health insurance and the composition and growth of the physician labor force. Data and statistics on the characteristics of the U. S. population, morbidity and mortality, the health care system, national expenditures and financing, and physician manpower are also included. Accompanying the 56-page booklet is a *Fact Sheet on Physicians*, covering topics from fees to licensure. Copies are available from AMA Order Dept., OP-088, P. O. Box 821, Monroe, Wis. 53566. Cost is \$3 each for 1-10 copies; \$2.50 each for 11-49; and \$1.75 each for 50 or more. Orders should be prepaid.

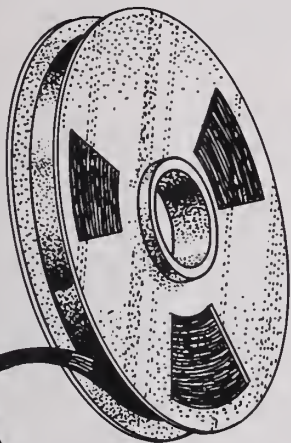
FIVE YEARS AGO, the AMA won a lawsuit and blocked the government's utilization review regulations covering Medicare and Medicaid patients. The AMA charged that the rules violated a Social Security Act provision forbidding federal supervision or control over the practice of medicine. The regulations were withdrawn by HEW (now HHS), revised, reissued and withdrawn again. Now UR regulations are back, and the AMA has urged the Health Care Financing Administration of HHS to revise them or withdraw

them. Again the AMA pointed to provisions that would give the HHS secretary the power to supervise or control the practice of medicine. The AMA said the proposed regulations would result in an unnecessarily broad program, a program not flexible enough to meet local needs, and would add unnecessary costs to medical care. The AMA offered to meet with HCFA in an effort to develop appropriate regulations.

THE AMA URGED DELETION of Medicare-Medicaid claims from the Amendments to False Claims Act (S 1981), since neither the act nor the proposed amendments contain provisions to safeguard personal medical information. The amendments are designed to assist the Justice Department in its prosecution of false claims. In a statement to the Senate Judiciary Committee, the AMA expressed support of efforts to more effectively prosecute persons filing false claims, but said "the exclusion of Medicare and Medicaid claims from S 1981 would in no way indicate a relaxation of federal prosecution of false claims under those programs." The AMA pointed out that Congress passed the Medicare-Medicaid Antifraud and Abuse Amendments of 1977 to deal with the issue of false claims, with the necessary and appropriate provisions to ensure medical confidentiality.

HEALTH PLANNING activities by state medical associations have increased sharply since 1978, according to the 1980 AMA Federation Health Planning Survey. The questionnaire sought information on how the state societies implement health planning laws. Of the 35 respondents, nearly 30 have employed full-time health planning staff to aid physicians with state and regional issues. A majority of the societies reported having an impact on specific planning activities. Respondents also reported increased physician awareness and understanding of the health planning program and its process, accompanied by increased physician participation. For more information, contact the Department of Community Health Systems, AMA Headquarters.

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Our Readers Write

An Open Letter to Missouri Physicians:

The Army Medical Department (AMEDD) is actively recruiting physicians for the Army Reserve. The armed services of the United States are suffering a severe shortage of physicians and this shortage critically effects the nation's ability to maintain a strong world posture.

Physicians appointed to the Army Reserve receive a direct commission as an officer in a grade commensurate with education and professional experience. Physicians are assigned to Reserve medical units within the community and these units are commanded by physicians. In the event of a declared national emergency, such as the Korean Conflict, medical units of the Army Reserve may be called to active duty. Otherwise, membership in the Army Reserve requires just 16 hours a month and two weeks annual training. Basic military training is NOT required for physicians.

In addition to the prestige of being a commissioned officer in the armed services and affiliation with the most comprehensive health care system in the country, the Army Reserve offers \$20,000 life insurance, post exchange (PX) privileges, free space-available transport aboard military aircraft, unique opportunities for continuing medical education, monthly pay and a military pension at age 60.

Information on physician opportunities in the Army Reserve is available from your AMEDD Personnel Counselor by calling (816) 374-2208.

Sincerely,
 GEORGE C. RUGEN
 Major, USAR
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 1528 Central
 Kansas City, Mo. 64108

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Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle, the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache, rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg tablet three times daily, one hour before meals, and in mid evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg tablet daily, swallowed whole, in mid morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phenolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
 Cayey, Puerto Rico 00633

Direct Medical Inquiries to
 MERRELL-NATIONAL LABORATORIES
 Division of Richardson-Merrell Inc.
 Cincinnati, Ohio 45215, U.S.A.

Licensors of Merrell®

References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon [Oillon], R.H., and Leyland, H.M. A comprehensive review of diethylpropion hydrochloride. In: Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York, Raven Press, 1978, pp 391-404.

Merrell

**Overweight may not always be simple...
complications can develop*.
Complicated or not...**

Tenuate[®] Dospan[®] ^{IV} **(diethylpropion hydrochloride NF)** **75 mg. controlled-release tablets**

A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict appetite control and a successful program of weight reduction may tend to diminish the incidence or severity of the complications in some patients. Diethylpropion hydrochloride has been reported useful in such patients and while it is not suggested that Tenuate itself in any way reduces the complications of overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. **Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.**

In uncomplicated overweight.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

**Tenuate—it makes sense.
And it's responsible medicine.**

*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

Merrell



For prescribing information see opposite page.

In G.I. therapy



Adjunctive **Librax**[®]

Each capsule contains
5 mg chlordiazepoxide HCl
and 2.5 mg clidinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax[®]

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium[®] (chlordiazepoxide HCl/Roche) to known addic-

tion-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug

and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

ROCHE

Roche Products, Inc.
Manati, Puerto Rico 00701



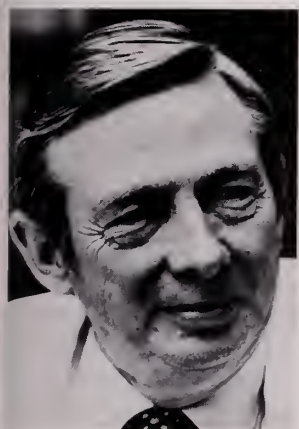
NEWS

From the Medical Schools

ST. LOUIS UNIVERSITY

The National Heart and Lung Institute has awarded the School of Medicine's departments of biochemistry and physiology a five-year, \$1,489,000 training grant for students involved in the research of heart and vascular diseases.

Robert E. Olson, M.D., Ph.D., chairman, Department of Biochemistry, directs the program along with **Alexander R. Lind, D. Phil., D. Sc.**, chairman, Department of Physiology.



Dr. Olsen

The program provides six stipends for predoctoral students and ten stipends for postdoctoral fellows to be awarded each year for training in the areas of nutrition, metabolism and basic physiology as it applies to the cardiovascular system.

The goal of the program is to develop future investigators and teachers with technical skills, scholarship and confidence to increase knowledge in these fields.

St. Louis University Hospitals will participate in the Gynecologic Oncology Group, a study involving 36 institutions throughout the United States.

As a result of this participation, the Department of Radiation Oncology will have access to the most modern treatment techniques including drugs, radiation and surgery. Information on all patients at the 36 institutions will be used to formulate the most effective method of treatment for patients with gynecologic cancer.

James Freel, M.D., director, Gynecologic Oncology Division, will be on the ten-member management committee of the national group. **Ronald Sapiente, M.D.**, assistant professor of radiation oncology, will serve on the ovarian committee. These committees will write and approve studies on the treatment of various gynecologic cancers. **Scott Martin, M.D.**, will serve on the

pathology committee.

William S. M. Wold, Ph.D., associate professor of molecular virology, has received a five-year, \$162,000 research career development award from the National Cancer Institute to study the molecular basis of human cancer.

His research involves studying the molecular mechanisms of the growth of human adenoviruses and their genes. Adenoviruses are common viruses that cause infections in the respiratory tract.

The American Heart Association has awarded a \$12,978, one-year grant to **Thomas Forrester, M.B., Ch.B., Ph.D.**, associate professor of physiology, to study coronary artery dilation in heart muscle.

Dr. Forrester will research the response of normal heart tissue to hypoxia, lack of oxygen. He has found that heart muscle releases special substances during hypoxia that cause the coronary arteries and branches to dilate.

Yael Alevy, Ph.D., assistant research professor, Department of Internal Medicine, has received a three-year, \$188,547 grant from the National Institute of Arthritis, Metabolism and Digestive Diseases to study cellular immunity in uremia.

Although there are obvious differences in the chronic uremia of humans and that of experimental animals, Dr. Alevy hopes to gain insight into the immune response defect in animals with uremia and investigate these results for humans.

UNIVERSITY OF MISSOURI-KANSAS CITY

A book written by **Henry Troyer, Ph.D.**, associate professor of anatomy, has been published by Little, Brown and Co., Boston. *Principles and Techniques of Histochemistry* is a text-laboratory manual which presents a balance between the theory and practical application of histochemistry.

Dr. Troyer wrote the book for use by graduate students and investigators in anatomy, biology, and related disciplines who wish to apply histochemical methods to help solve their research problems.

Tawfik M. A. ElAttar, Ph.D., lecturer of medicine and professor of dentistry, was one of six finalists for the 1980 Phi Kappa Phi Scholar Award. Thirty-seven people representing 23 disciplines were nominated. Dr. ElAttar is a former Fulbright scholar at the University of Missouri and was the 1973 recipient of the N. T. Veatch Award for Distinguished Research and Creativity.

Two School of Medicine students have received the St. Louis Friends of the UMKC School of Medicine Research Award this year. *Steve Kelly* and *Ward Hardin* are sixth-year students whose awards were made with the Dean's recommendation.

Steve Kelly of St. Louis received his award for his work with *Mrs. Susan Pingleton* and *Patrick Ryan* on the effect of erythromycin on theophylline metabolism. The results have been published in the *American Review of Respiratory Disease, Chest* and will be presented at the 46th Annual Scientific Meeting of the American College of Chest Physicians in Boston in October.

Ward Hardin of Cabool has worked with *Dr. Marjorie Sirridge* on a series of studies of coagulation and with *Dr. Leslie Tucker* on studies of gallstones and the gall bladder.

"Faculty Dimensions" is a new School of Medicine publication for the faculty. Input from community physicians is welcomed. All information should be sent to the Editor, Faculty Dimensions, Office of Educational Resources, UMKC School of Medicine, 2411 Holmes, Kansas City, MO 64108.

Twenty-four students and faculty members spent the month of August touring Eastern Europe on the 1980 Study Tour. Tour highlights included the University of Vienna, the Ministry of Health in Vienna, Graz (Austria) General Medical Center, Budapest and the High Tatra region of Czechoslovakia.

A tour of the Vienna School of Medicine was scheduled early in the trip. Professor Kaiser of the Medical Chemistry Institute explained that Austrian medical schools are compelled to take all students who apply. There are approximately 1,400 students per class.

The group also toured the Institute of Chemistry, the Institute of the History of Medicine, the Institute of Anatomy, and the Allgemeines Krankenhaus, the 200-year-old public hospital of Vienna.

Joseph Mendel Yoffey, M.D., a visiting professor at the Hebrew University-Hadassah Medical

School in Jerusalem, presented a special lecture on August 29th. The title of his presentation is "How to Be Wrong About Lymphocytes."

A native of Manchester, England, Dr. Yoffey was professor and chairman of the Department of Anatomy at the University of Bristol in England from 1944 to 1967. He is an internationally renowned scholar who has written six books and more than 130 scientific articles, primarily on the lymphocyte, bone marrow and the hemopoietic stem cells.

Dr. Yoffey's honors include the Knighthood of Dannebrog, first grade (Denmark); the Triennial John Hunter Medal of the Royal College of Surgeons of England; and honorary life membership in the American Association of Anatomists.

WASHINGTON UNIVERSITY

The American Otological Society, Inc., the oldest organization in the world dealing with diseases of the ear, presented its prestigious Award of Merit to *Ben H. Senturia*, M.D., clinical professor emeritus in the Medical School's Department of Otolaryngology.

Dr. Senturia, a member of the staff of Barnes and Jewish Hospitals, is also editor of the *Annals of Otolaryngology, Rhinology and Laryngology*. He graduated from Washington University School of Medicine in 1935. He served his internship at St. Louis City Hospital and his residency at affiliated hospitals of the Medical School. Dr. Senturia has been a member of the faculty at the School since 1938 and has held his current position since 1979.

Donald Busiek has been selected as the student recipient of a \$1,500 research fellowship funded by Syntex Laboratories.

The purpose of the annual fellowship program is to help channel qualified medical students toward a greater interest in dermatological research. Fellowship recipients are selected by a Review Committee of the American Academy of Dermatology.

Mr. Busiek's research project will be under the direction of *Dr. Eugene Bauer*, Division of Dermatology at the School of Medicine.

UNIVERSITY OF MISSOURI-COLUMBIA

Three physicians have been added to the Department of Medicine faculty as associate professors.

Dr. Margaret Alspaugh has a joint appointment in medicine and pathology. Before joining

the University of Missouri-Columbia (UMC), she was associate professor of medicine and microbiology at the Louisiana State University Medical Center. She received her Ph.D. degree from Washington State University in 1972. After a postdoctoral fellowship in veterinary microbiology at that school, she was a fellow at the Scripps Clinic and Research Foundation in La Jolla, Calif.

Dr. Donald Kay is a 1961 graduate of the University of Michigan Medical School. He completed his residency there in 1968 and was a fellow at the Rackham Arthritis Research Unit at the University. He has been on the faculty there since 1966.

Dr. Sara Walker, who is married to Dr. Kay, graduated from the University of Texas Medical Branch in Galveston in 1964. She completed her residency at Baylor University in 1968. From 1968 to 1972, she was a fellow at the Rackham Arthritis Unit. This included two years as a special fellow of the National Institute of Arthritis and Metabolic Diseases. She joined the Michigan University faculty in 1968.

Dr. Mark Hoerl, formerly family practice instructor at the University of Nebraska Medical Center, has joined the UMC Family and Community Medicine Department as an assistant professor. A 1976 graduate of the UMC School of Medicine, Dr. Hoerl will be working at the Fayette Medical Clinic.

Dr. Joyce Mitchell has been named an assistant professor of medical genetics in the Child Health Department. Dr. Mitchell received her Ph.D.

degree in population genetics at the University of Wisconsin in 1976 and accepted postdoctoral fellowships at UMC in 1976-1978 and the University of California in San Francisco in 1978-1980.

Dr. Quinton Ditmore is now an assistant professor of neurosurgery. A 1969 graduate of the University of Oklahoma School of Medicine, Dr. Ditmore completed his postgraduate training at the University of Texas Health Science Center in Dallas. He has been in private practice in Greenville, S.C.

Two specialists are joining the faculty of the Department of Ophthalmology.

Dr. Henry Yang, an assistant professor, has completed a postgraduate fellowship in phacoemulsification and intraocular lens implantation at the Willis Eye Hospital in Philadelphia.

Dr. Yang received his M.D. degree at the New York Medical College in 1975. He interned at the University of Pennsylvania Hospital and completed his residency at the University of Maryland Hospital in 1979.

Dr. Giangiacomo graduated from the University of Cincinnati College of Medicine in 1968. He served his internship at Barnes Hospital in St. Louis and completed a residency in pediatrics at Cardinal Glennon Memorial Hospital for Children.

After a pediatric-nephrology residence at Washington University from 1971 to 1973, Dr. Giangiacomo served on the pediatrics faculty at St. Louis University for four years. In 1977, he began an ophthalmology residence at the University of Missouri-Columbia.

The public buys its opinions as it buys its meat, or takes its milk, on the principle that it is cheaper to do this than to keep a cow.

So it is, but the milk is more likely to be watered. — SAMUEL BUTLER: Notebooks, c.1890



9202 Barton

Overland Park, Ks. 66214

913-492-5820

New Members

Abraham Azan, M.D., 1718 S. Ingram, Sedalia 65301, has become a member of Pettis County Medical Society. Dr. Azan is a native of Beirut, Lebanon, received his preliminary education at Knox College and his M.D. degree at the University College of the West Indies in 1970. He specializes in obstetrics and gynecology.

Walter A. Black, M.D., P. O. Box 908, Kimberling City 65686, has become a member of Tri-Lakes Medical Society. Dr. Black is a native of Farmington, Ill., received his preliminary education at Indiana University and his M.D. degree at Loma Linda University in 1974. He specializes in family practice.

Oren K. Broughton, M.D., 427 Cahill Rd., Branson 65616, has become a member of Tri-Lakes Medical Society. Dr. Broughton is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1970. He specializes in internal medicine.

Jerald Chaffin, M.D., Rt. 2, Box 447, Branson 65616, has become a member of Tri-Lakes Medical Society. Dr. Chaffin is a native of Los Angeles, Calif., received his preliminary education at the School of the Ozarks and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in family practice.

Jeffrey L. Craver, M.D., 216 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Craver is a native of Petersburg, Va., received his preliminary education at Cornell University and his M.D. degree at Washington University in 1979. He specializes in pathology.

Ronald K. DeGuerre, M.D., 11115 New Halls Ferry Rd., Florissant 63033, has become a member of St. Louis Metropolitan Medical Society. Dr. DeGuerre is a native of Milwaukee, Wis., received his preliminary education at Washington University and his M.D. degree at Washington University in 1974. He specializes in urology.

Roy Jack Gillispie, M.D., Doctor's Medical Building, Branson 65616, has become a member of Tri-Lakes Medical Society. Dr. Gillispie is a native of Ft. Leonard Wood, received his preliminary education at the University of Missouri-

Columbia and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in family practice.

Benjamin E. Greenberg, M.D., Rt. 2, Box 1, Forsyth 65653, has become a member of Tri-Lakes Medical Society. Dr. Greenberg is a native of New York, N. Y., received his preliminary education at Columbia College and his M.D. degree at Long Island College in 1932. He specializes in radiology.

Vince P. Gurucharri, M.D., 3205 Lansing Ave., Columbia 65201, has become a member of Boone County Medical Society. Dr. Gurucharri is a native of Rome, N. Y., received his preliminary education at the University of Notre Dame and his M.D. degree at the University of Chicago in 1971. He specializes in thoracic, general and peripheral vascular surgery.

Jack C. Hackethorn, M.D., 1012 N. Main, Sikeston 63801, has become a member of SEMO County Medical Society. Dr. Hackethorn is a native of Washington, D. C., received his preliminary education at Westminster College and his M.D. degree at the University of Missouri-Columbia in 1970. He specializes in orthopedic surgery.

Marion C. Harper, M.D., 807 Stadium Rd., Columbia 65201, has become a member of Boone County Medical Society. Dr. Harper is a native of South Carolina, received his preliminary education at the University of Georgia and his M.D. degree at the University of Georgia in 1967. He specializes in orthopaedic surgery.

Melvin G. Hector, M.D., Dept. of Family & Community Medicine, University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Hector is a native of Columbia, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in family practice.

George R. Holt, M.D., 3205 Lansing, Columbia 65201, has become a member of Boone County Medical Society. Dr. Holt is a native of Marshall, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-

(Continued on page 587)

WHEN ANXIETY AND TENSION MAGNIFY PAIN

IN MUSCULOSKELETAL DISEASE*

A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC[®]

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

*INDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective, for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation. The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures. Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlorthalidate, end diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or am-

phetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions. Mild reactions are characterized by an itchy urticarial or erythematous maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinitiation of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia in nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

Wyeth Laboratories
Philadelphia, Pa 19101



FOR MODERATE PAIN

A therapeutic dose
of acetaminophen
in one tablet

A therapeutic dose
of two complementary
analgesics

The convenience and
economy of a
dosage schedule of
one tablet, every four
hours as needed

WHY NOT WYGESIC[®]

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdosage).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see Warnings). Confusion, anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity (jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

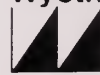
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamines) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977).

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Columbia in 1970. He specializes in otolaryngology.

Jean E. Holt, M.D., 3205 Lansing, Columbia 65201, has become a member of Boone County Medical Society. Dr. Holt is a native of Lamar, received her preliminary education at the University of Missouri-Columbia and her M.D. degree at the University of Missouri-Columbia in 1972. She specializes in ophthalmology.

Perry U. Hunsley, M.D., 427-C Cahill Rd., Branson 65616, has become a member of Tri-Lakes Medical Society. Dr. Hunsley is a native of Alamota, Kan., received his preliminary education at the College of Emporia and his M.D. degree at the University of Kansas in 1956. He specializes in general surgery.

Joseph A. Kahn, M.D., 1012 N. Main, Sikeston 63801, has become a member of SEMO County Medical Society. Dr. Kahn is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in pediatrics.

Judith M. Laube, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Laube is a native of Helena, Mont., received her preliminary education at the University of Montana and her M.D. degree at St. Louis University in 1974. She specializes in anesthesiology.

Oliver Manigo, Jr., M.D., 2241A S. Brentwood, Brentwood 63144, has become a member of St. Louis Metropolitan Medical Society. Dr. Manigo is a native of Savannah, Ga., received his preliminary education at Savannah State College and his M.D. degree at Washington University in 1976. He specializes in internal medicine.

Donald Eugene Mitzelfelt, M.D., P. O. Box 908, Kimberling City 65686, has become a member of Tri-Lakes Medical Society. Dr. Mitzelfelt is a native of East Peoria, Ill., received his preliminary education at Andrews University and his M.D. degree at Loma Linda University in 1964. He specializes in family practice.

Phillip L. Monroe, M.D., 370 S. Odell Ave., Marshall 65340, has become a member of Saline County Medical Society. Dr. Monroe is a native of St. Louis, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-

Kansas City in 1977. He specializes in family practice.

Robert P. O'Brien, M.D., Medical Building, Cahill Rd., Branson 65616, has become a member of Tri-Lakes Medical Society. Dr. O'Brien is a native of Phoenix, Ariz., received his preliminary education at North Carolina State University and his M.D. degree at the University of Arizona in 1975. He specializes in orthopedic surgery.

Miguel M. Ollada, M.D., 201 Manchester, Manchester 63011, has become a member of St. Louis Metropolitan Medical Society. Dr. Ollada is a native of Chicago, Ill., received his preliminary education at the University of the Philippines and his M.D. degree at the University of the East in 1965. He specializes in internal medicine and gastroenterology.

Smita S. Parikh, M.D., 777 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Parikh is a native of India, received her preliminary education at Gujarat University and her M.D. degree at Gujarat University in 1970. She specializes in radiology.

Sumati Rao, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Rao is a native of India, received her preliminary education at Osmania University and her M.D. degree at Osmania University in 1971. She specializes in pathology.

Jesse R. Ramsey, D.O., #35 Doctor's Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Ramsey is a native of Ft. Worth, Tex., received his preliminary education at Texas Wesleyan College and his D.O. degree at Texas College of Osteopathic Medicine in 1974. He specializes in pediatrics.

Samuel H. Rosen, M.D., 35 N. Central Ave., Suite 541, St. Louis 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. Rosen is a native of Charleston, S. C., received his preliminary education at Emory University and his M.D. degree at the University of Alabama in 1974. He specializes in psychiatry.

Lewis L. Rowe, M.D., 621 S. New Ballas, St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Rowe is a native of Louisville, Ky., received his preliminary

education at the University of Louisville and his M.D. degree at the University of Louisville in 1976. He specializes in anesthesiology.

Michael Setzen, M.D., 517 S. Euclid, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Setzen is a native of Johannesburg, South Africa, received his preliminary education at the University of Witwatersrand and his M.D. degree at the University of Witwatersrand in 1974. He specializes in otolaryngology.

Anothai Tavee, M.D., 126 W. Russell, Ironton 63650, has become a member of Mineral Area County Medical Society. Dr. Tavee is a native of Thailand, received his preliminary education at the University of Medical Sciences and his M.D. degree at Chiangmai Medical School in 1968. He specializes in internal medicine.

Stuart H. Tubis, M.D., 4240 Blue Ridge Blvd., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Tubis is a native of New Jersey, received his preliminary education at Harvard University and his M.D. degree at the University of Southern California-Los Angeles in 1966. He specializes in neurology and psychiatry.

Raymond L. Webster, M.D., USAF Clinic Pope, 24 Commando Ave., Pope AFB, N. C. 28308, has become a member of St. Louis Metropolitan Medical Society. Dr. Webster is a native of Riverside, Calif., received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri-Columbia in 1978. He specializes in surgery.

Jerry C. Wible, M.D., 427 Cahill Rd., Branson 65616, has become a member of Tri-Lakes Medical Society. Dr. Wible is a native of Robinson, Ill., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1973. He specializes in otolaryngology.

New Student Members

University of Missouri-Columbia

David Richard Brown
Michael B. Dixon
Tim Jordan
Alexis Freda Lang
Randal Allen Otto
Thomas M. Shultz
Susan D. Sterchi
Catherine M. Van Voorn

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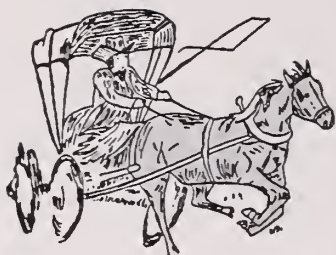
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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The birth rate in Missouri in 1939 was the highest recorded since 1931, according to the State Board of Health. The leading causes of death for 1939 at the rates per 100,000 were reported as heart disease, 265.20; cancer, 126.17; nephritis, 107.55; and cerebral hemorrhage, 89.20.

The mighty Mississippi was piling up so much silt in front of the St. Louis wharf that it seemed to be destroying the commercial importance of the city. Ralph Cannon has described the frontier life in St. Louis 100 years ago in his historical novel, "Lee on the Levee" (Saravan House, New York). The mechanical ingenuity of Lt. Robert E. Lee helped to keep the mighty Mississippi within its course.

Dr. Robert E. Schlueter, St. Louis, has been elected vice-president of the Medical Library Association for 1940-1941. The president is Col. Harold W. Jones of the Army Medical Library, Washington, D.C.

Mrs. Stanley P. Howard of Jefferson City is president and Mrs. J. J. Drace of Chillicothe is president-elect of the Woman's Auxiliary to the Missouri State Medical Association. The MSMA advisor is Dr. Herbert L. Mantz of Kansas City.

TWENTY-FIVE YEARS AGO

Newly elected officers of the Washington University School of Medicine Alumni Association are Paul O. Hagemann, M.D., St. Louis, president; Lee B. Harrison, M.D., vice-president; and Ernest T. Rouse, M.D., secretary-treasurer.

Arthur Adelman, M.D., Kansas City, has been awarded the bronze star medal for meritorious achievement while serving as chief of thoracic surgery in a Tokyo Army hospital.

John Killion, M.D., Portageville, has accepted a professorship in the student health department of the San Diego (Calif.) State College.

The resignation of Dr. Carl V. Moore, dean of the Washington University School of Medicine

for the past two years, and his appointment as Busch Professor of Medicine and head of the Department of Internal Medicine was announced by Chancellor Ethan A. H. Shepley. Dr. Moore also became physician-in-chief at Barnes Hospital.

In recognition of his "genius and generosity," St. Louis University honored its Nobel Prize-winning biochemist, Dr. Edward Doisy, by naming the Department of Biochemistry for him. Dr. Doisy had assigned his patent and licensor rights for the manufacture and sale of Theelin to the University 25 years ago.

TEN YEARS AGO

Thomas R. O'Brien, executive director of St. Louis Blue Shield and a former executive secretary of the Missouri State Medical Association for 21 years, died on June 27, 1970 at the age of 62 in his home in St. Louis.

Results of the first certifying examination in the new medical specialty of family practice have been reported by Dr. John G. Walsh, Sacramento, Calif, president of the American Board of Family Practice. Of the 2,078 physicians taking the two-day examination, 81.6% passed it successfully.

Dr. Richard S. Wilbur of the American Medical Association, Dr. Joseph L. Fisher, president of the Missouri Medical Association, and Mrs. William M. Walker, president of the Woman's Auxiliary to the MSMA, were the guest speakers at the MSMA Eighth Councilor District meeting in Springfield. Dr. Howard J. McAlhany, president of Greene County Medical Society, said that this was the first district meeting since 1957.

Dr. Vernon E. Wilson, vice-president of academic affairs at the University of Missouri-Columbia, has been sworn in as administrator of the Departments of Health Services and Mental Health Administration for the U.S. Department of HEW. Dr. Wilson joined the UMC staff as dean of the School of Medicine and dean of the Medical Center in 1959.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (Federal Register, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Missouri Medicine

Vol. 77, No. 10

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October, 1980

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Frank E. Johnson, M.D.

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INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity or idiosyncrasy to the sympathomimetic amines, glaucoma, agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: **Cardiovascular:** Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. **Central Nervous System:** Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache, rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. **Gastrointestinal:** Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. **Allergic:** Urticaria, rash, ecchymosis, erythema. **Endocrine:** Impotence, changes in libido, gynecomastia, menstrual upset. **Hematopoietic System:** Bone marrow depression, agranulocytosis, leukopenia. **Miscellaneous:** A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in mid-morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phenolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.
Licensor of Merrell®

References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Fallon [Dillon], R.H., and Leyland, H.M. A comprehensive review of diethylpropion hydrochloride. In: Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York, Raven Press, 1978, pp. 391-404.

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**Overweight may not always be simple...
complications can develop*.
Complicated or not...**

Tenuate[®] Dospan[®] ^{IV} **(diethylpropion hydrochloride NF)** **75 mg. controlled-release tablets**

A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict appetite control and a successful program of weight reduction may tend to diminish the incidence or severity of the complications in some patients. Diethylpropion hydrochloride has been reported useful in such patients and while it is not suggested that Tenuate itself in any way reduces the complications of overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. **Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.**

In uncomplicated overweight.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

**Tenuate—it makes sense.
And it's responsible medicine.**

*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

Merrell



For prescribing information see opposite page.

α

Alpha Stimulation

Central Control of
Blood Pressure*



*The Family of Man" by Roberto Moretti,
a statuary in crystal symbolizing the broad range of
hypertensive patients eligible for therapy with Catapres

The Alpha Advantage:

It's for all kinds of hypertensives

- Unlike beta blockers, Catapres® has no contraindications.
- Catapres can be useful even in these patients with:

Congestive heart failure	Allergic rhinitis
Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
Bronchial asthma	Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.

love—low incidence of impotence and/or loss of libido:
2.8% in 1,923 patients studied.¹

cardiac output—tends to return to control values during long-term therapy.

blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

* Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

¹ Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

**Now available in new
0.3 mg tablets**

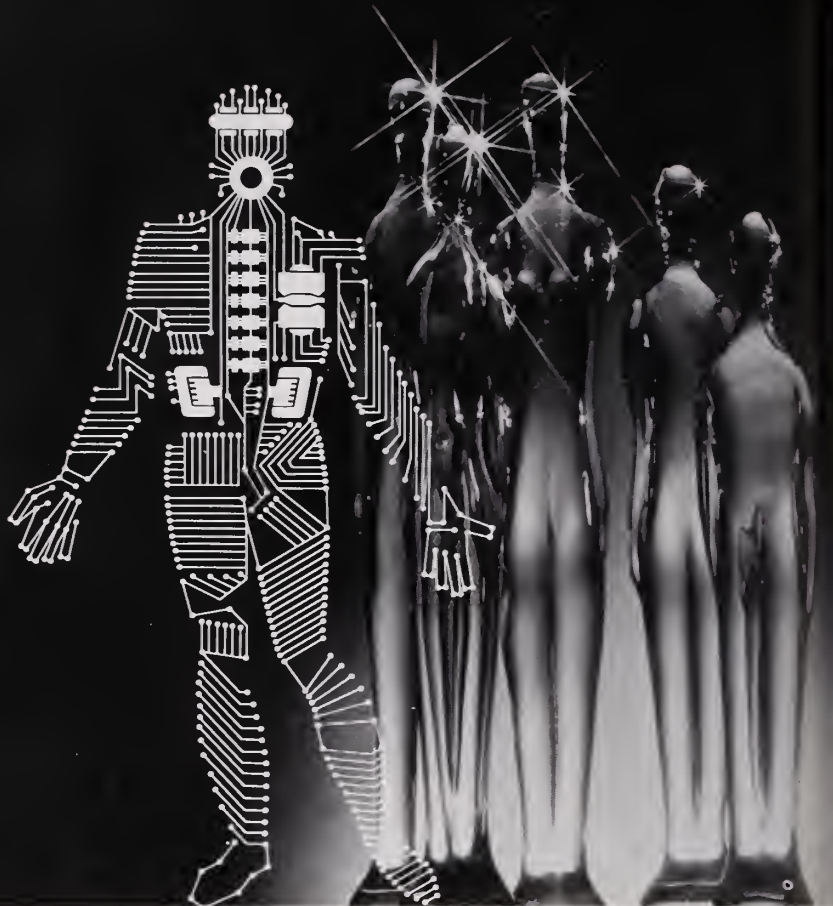
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(clonidine HCl)
Hypertension





The Alpha Advantage: It's for all kinds of hypertensives

Tablets of 0.1, 0.2, 0.3 mg
Catapres
(clonidine HCl)
Hypertension



- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

Catapres[®]
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an anti-hypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.

Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.

Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

spontaneously occurring retinal degeneration in albino rats treated for 6 months longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness, sedation. Constipation, dizziness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug, some of them rarely. (In some instances an exact causal relationship has not been established.) These include: Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormalities in liver function tests; one report of possible drug-induced hepatitis without icter and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chlorthalidone and papaverine hydrochloride. Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase: congestive heart failure, Raynaud phenomenon; vivid dreams or nightmares, insomnia, other behavioral changes; nervousness, restlessness, anxiety and mental depression. Also rash, a glioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness, itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecomastia, weakly positive Coombs' test, asymptomatic electrocardiographic abnormalities manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished or absent reflexes and vomiting followed the accidental ingestion of Catapres (clonidine hydrochloride) by several children from 19 months to 5 years of age. Gastric lavage and administration of an analeptic and vasopressor led to complete recovery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-minute intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) overdosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.

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October, 1980

Council recommends Interim Session be discontinued

During the September 20 meeting, the MSMA Council voted to approve the recommendation of the Ad Hoc Committee to Study Interim Session that the Interim Session be discontinued after 1980. The committee felt that although the session was originally designed to handle legislative matters, there have been few resolutions submitted concerning upcoming legislation.

The Council members discussed the possibility of combining the January "Key Contact" meeting and a meeting focusing on upcoming legislation.

The Council also approved the committee recommendation that further study be made as to whether the Annual Session should be moved to the fall, due to the large number of possible conflicts.

The recommendation of the Liaison Committee with the State Board of the Healing Arts regarding Resolution #11 that, at this time, a definition of the practice of medicine in specific terms is not desirable was approved. The Council also approved the committee recommendation that a summary of disciplinary actions taken by the State Board be published in MISSOURI MEDICINE.

Also at the meeting, MSMA President Richard V. Bradley appointed the following physicians to serve on a task force to review Report A of the AMA Council on Medical Education: Drs. Lawrence O'Neal, George Ladyman, William C. Allen, William D. Bradshaw and William Stoneman.

In other actions, the Council:

- approved a plan to reimburse physicians who hold MSMA subordinated notes and who have since died, retired or left the state.
- voted to invite the chairman of the Missouri Delegation to the AMA to all Council meetings as an ex-officio member.
- approved the report of the Commission on Continuing Education recommending the reactivation of the Ad Hoc Committee on Health Manpower.
- heard and approved the report of the Committee on Voluntary Health Agencies.
- approved a resolution waiving the minimum requirement set in the January 31, 1980 agreement in which MSMA agreed to exchange certain shares of MOMEDICO stock.
- approved the following appointments to the MISSOURI MEDICINE Editorial Board: Drs. Stephen Hamburger, St. Louis, and Jay P. Marshall, Kansas City.
- discussed the possibility of developing a "Meet Your AMA Delegates" breakfast or luncheon program during the Annual Session so that more physicians will be able to attend.
- approved the recommendation of the Committee to Study Certificates of Membership that a parchment



The presidents of three medical organizations were among those attending a special St. Louis Metropolitan Medical Society meeting held to increase membership at all levels of medicine. From left to right are Richard V. Bradley, M.D., Missouri State Medical Association; Robert B. Hunter, M.D., American Medical Association; and Edwin J. Cunningham, M.D., St. Louis Metropolitan Medical Society.

certificate would be the best method of providing a certificate of membership to MSMA members.

- approved 2-year provisional CME accreditation for Independence Sanitarium and Hospital.
- approved the appointment of Drs. J. Otto Lottes, chairman, Richard Fallon, and Paul Rother to the Committee on Arrangements for the 1981 Annual Session.

"Key Contacts" needed for 1981 General Assembly

The Action Committee on Political Affairs is now seeking interested MSMA members to serve as "Key Contacts" for the 1980-1981 session of the Missouri General Assembly. "Key Contacts" are requested to keep their state representatives and senators informed of the current position of organized medicine on bills presently before the Legislature.

Physicians who are personally acquainted with a legislator or who have a legislator as a patient are encouraged to become active in the program.

The "Key Contacts" will receive a weekly Legislative Report to keep them informed of the current status of bills which may affect the medical profession.

To increase the effectiveness of the "Key Contact" program, a "Key Contact" meeting has been planned for January 10, 1981 in Jefferson City. The meeting

Continued on next page

"Key Contacts" (Continued)

will help to give "Key Contacts" a greater understanding of the legislative process.

Legislative leaders and MSMA lobbyists will speak on such topics as how bills become laws, how to contact your legislator, and a forecast of the 1981 legislative session with the MSMA position on these bills. In addition Dexanne Clohan, an AMA Washington lobbyist, will give an overview of federal legislation related to the medical profession.

If you are interested in becoming a "Key Contact" or are interested in attending the meeting, please contact the MSMA Office, P.O. Box 1028, Jefferson City, MO 65102.

MSMA House to consider 11 resolutions

The Resolutions and their subject matter to be considered at the 1980 Interim Session are as follows:

Resolution #1 — recommends that the Interim Session be discontinued.

Resolution #2 — calls for an assessment of MSMA members for student expenses at MSMA meetings.

Resolution #3 — recommends the establishment of an Ad Hoc Committee on the Chronically Mentally Ill.

Resolution #4 — calls for MSMA support of an increase in fees for the State Board of Healing Arts.

Resolution #5 — calls for the Commissions on Public Affairs and Interspecialty Medicine to meet jointly to formulate scientific advice on the statewide problem of toxic waste.

Resolution #6 — resolves that the MSMA oppose legal execution by injection of lethal drugs.

Resolution #7 — suggests guidelines for physician advertising.

Resolution #8 — resolves that the MSMA should oppose regulations requiring that all PKU-T4 testing be done by the State Laboratory.

Resolution #9 — suggests requirements for compulsory rabies vaccination for animals.

Resolution #10 — states that efforts to allow nurse practitioners to provide direct health care to CHAMPUS beneficiaries would result in a lowering of medical standards of the program.

Resolution #11 — calls for the MSMA and AMA to formulate State and National Health Policies.

Dr. Frawley is selected

Thomas F. Frawley, M.D., of St. Louis, was named president-elect of the American College of Physicians at the association's annual meeting in New Orleans. Dr. Frawley will assume the presidency at the 1981 annual convention in Kansas City.

Dr. Frawley is a clinical professor and chairman emeritus of the Department of Internal Medicine at the St. Louis University School of Medicine.

New Director of State Division of Health named

Nasir Akhter, M.D., has been named director of the Missouri State Division of Health.

Dr. Akhter had previously served as chief of the Division of Emergency Medical Services of the Michigan Department of Health.

MMPAC membership increases

A record high number of 1818 physicians and auxiliary members belong to the Missouri Medical Political Action Committee, as of September 26, 1980.

This total includes 1700 regular members, 100 sustaining members and 18 auxiliary members.

However, more MMPAC supporters are needed to provide medical input into the political issues which affect medicine. This is especially true in an election year!

If you are not already a member of MMPAC, please send your \$100 Sustaining Membership, \$40 Family Membership, or \$25 Individual Membership today. Mail it to MMPAC, P.O. Box 1402, Jefferson City, MO 65102.

Winter tours offered to MSMA members

An eight day luxury cruise to the West Indies and a South African Adventure are among the tours being offered to Missouri State Medical Association members. All of the tours are being offered by INTRAV and feature non-regimented schedules.

The West Indies cruise will leave Kansas City and St. Louis on January 24, 1981 and will return January 31. Stops will be made at such islands as Curacao, Grenada and St. Thomas for day excursions.

The sixteen day South African Adventure leaves Kansas City and St. Louis on February 25, 1981 and returns March 12. Visits to Cape Town and Johannesburg and an optional safari are among the highlights of the trip.

Other Adventure Holidays offered by INTRAV include a 21 day holiday to South America, a 22 day safari to East Africa and a 24 day luxury trip to the South Pacific.

A comprehensive program of medical seminars will be conducted on each of the tours. Participants in the continuing medical education program will receive hour for hour credit in Category Two for the Physicians Recognition Award of the American Medical Association.

If you would like additional information on the tours, please write to the Missouri State Medical Association, P.O. Box 1028, Jefferson City, Missouri 65102.

MSMA Committee on the Impaired Physician
Confidential 24-hour Recorded Message Telephone Number

314-636-5744

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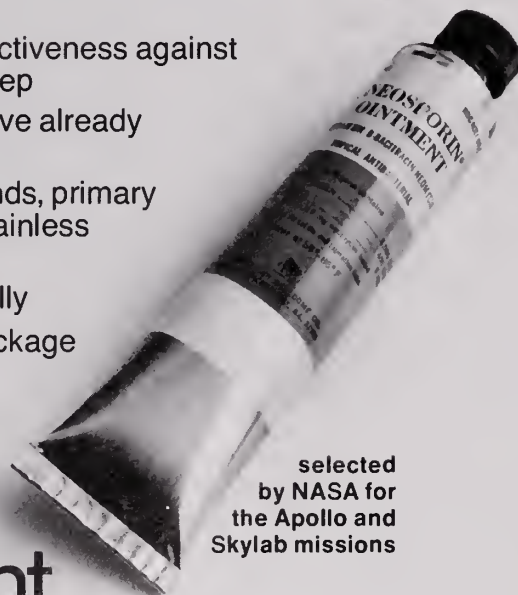
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Neomycin

Bacitracin

Gram-negative
Pseudomonas
Haemophilus
Klebsiella
Aerobacter
Escherichia
Proteus
Gram-positive
Corynebacterium
Staphylococcus
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1. provides broad-spectrum, overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep
2. helps prevent topical infections, and treats those that have already started
3. it's good medicine for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses; and it's painless and cosmetically pleasing
4. contains three antibiotics that are rarely used systemically
5. you can recommend it in any of the three convenient package sizes: 1 oz tube, 1/2 oz tube, or the versatile, single-use foil packet



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by NASA for
the Apollo and
Skylab missions

NEOSPORIN® Ointment

(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 10,000 units, bacitracin zinc 400 units, neomycin sulfate 3.5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations,

prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Missouri State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by all authors of the submission will necessitate delay in review of the manuscript.

Manuscripts should be typewritten, double spaced and the original with one carbon copy submitted. Retain another carbon copy for proofreading. Used manuscripts are not returned. School and hospital appointments of the author should accompany the manuscript. It is desirable that a synopsis-abstract of approximately 135 words accompany the manuscript.

References should be cited in numerical order in the text and arranged at the end of the article in the same order in which they are cited. The reference should give name of author, title of article, name of periodical, volume number, initial page number and year. Authors are responsible for reference accuracy.

Illustrations should be glossy prints or drawings in India ink on white paper. They should not be mounted and name of author and figure number should be penciled lightly on the backs. Legends should appear on a separate sheet.

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All material other than scientific should be received prior to the first of the month preceding month of publication.

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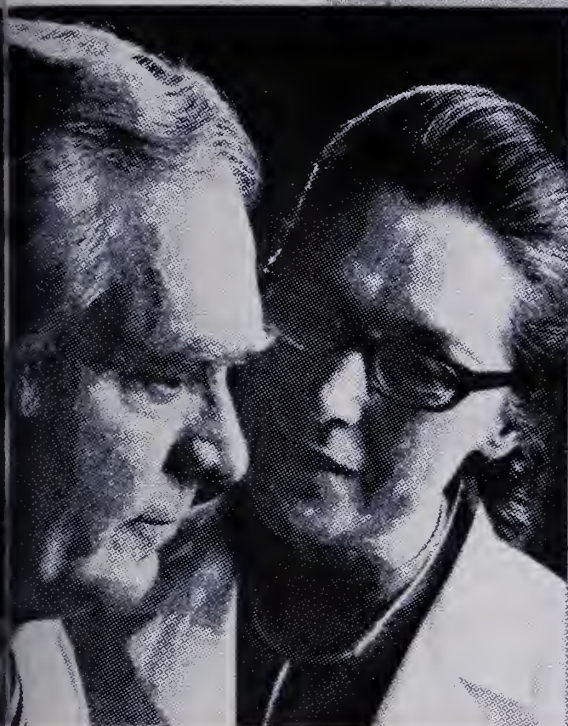
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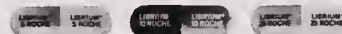
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Editor's Corner

IN PROPER PERSPECTIVE

Until interplanetary travel becomes available at bargain rates, a very fine way for you to realize what a tiny pimple you are on the posterior of the universe is to go up in an airplane. This makes even the phenomena of nature take on a different aspect than when viewed from the ground and certainly different than that reported by news media.

What brought this on was a trip by private plane when we flew at 20,000 feet over Mt. St. Helens. True enough, the volcano was only complaining a bit at the time. One could see a certain devastation of what must have been a lovely forested area. However, the clincher was that a very few miles away everything looked quite as before. In that vast area of mountains, St. Helens became insignificant indeed. Not far away towered the unchanged, magnificent, pristine peaks of Hood and Rainier, much greater mountains, which glared down austere at the upstart St. Helens, much as a maiden aunt at an ill-behaved and tantrumy child.

I was also helped in viewing the St. Helens affair with detachment because we had spent that very morning in Eugene, Oregon at breakfast with the Professor of Economics at Oregon University and we profited by his comments. Contrary to the horror stories reported by the press, television and radio, that gentleman viewed St. Helens as an unfortunate and inconvenient happening. "But," he said, "no big deal. Nothing to compare with a major hurricane hitting a major city." Two weeks later, in the Pike Street Farmers Market in Seattle, we found luscious Yakima peaches and apples from the crop which, according to the media, had been wiped out in Yakima.

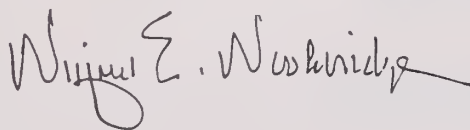
I suspect, as I have suspected many times before, the reporting of Mt. St. Helens's misbehavior was heavily weighted with sensationalism but lightly ballasted with fact. I suppose journalism is no different now than it has always been but, if you really want to know the truth, it is probably best to go and find out for yourself.

Thus, not only you and me but also Mt. St. Helens and, probably most of all, our pontifical news reporters become very insignificant and beneath the dignity of cosmic glance.

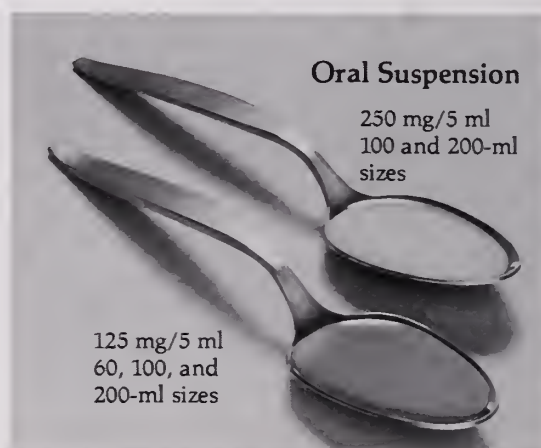
A long time ago, I read a priceless little note in a country weekly. It was titled "Fifty Years Ago In Gainesville." It went like this, "Ed Batchler left Gainesville last week to go to Springfield. He made it as far as Dogwood Hill. Then he came back home. He said, 'If the world is as big in every direction as it is between Gainesville and Springfield, she's a whopper.'"

And it wouldn't be a bad idea for all of us to keep that in mind. It really is just that big. And we that small.

From:
"Conversations with Myself"
Wilfred E. Wooldridge, M.D.



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DEVI P. MISRA, M.D., JAMES D. MALTBY, M.D.
and DANIEL J. HURST, M.D., *Columbia*

Legionnaire's Disease in Missouri

A Review of Five Sporadic Cases

EVER SINCE the 1976 Philadelphia epidemic outbreak¹ of Legionnaire's disease, the majority of described cases have occurred in clusters.¹⁻³ As of November, 1978, 496 cases⁴ have been brought to the attention of The Center for Disease Control. These were reported from 43 states and the District of Columbia. Ten cases occurred in Missouri. Only 31 cases of sporadic Legionnaire's disease have been described in detail so far in the literature.⁵⁻⁹

Between the spring of 1977 and the spring of 1979, five sporadic cases of Legionnaire's disease were identified at the University of Missouri Medical Center and the Harry S. Truman Veterans Administration Hospital in Columbia.

CASE REPORTS

Case #1 A 50-year-old diabetic woman had diarrhea for two to three days followed by a dry, nonproductive cough and fever of 39 C to 40 C with shaking chills and moderate dyspnea. One week after the onset of symptoms, she was admitted in September, 1979. She was somnolent, febrile and progressively short of breath. Her pulse rate was 120 per minute; blood pressure was 140/68 mm Hg and her respiratory rate was 40 per minute. The jugular venous pressure was less than 5 cm without hepatojugular reflux. A chest examination revealed right posterior basal dullness on percussion with diminished vesicular breath sounds and coarse rales. There were no rhonchi or wheezes.

The chest roentgenogram on admission (Fig. 1A) showed a diffuse air space infiltrate involving most of the right lung sparing the apex. The arterial blood gases on room air were pH 7.40, PaO₂ of 29 mm Hg and PaCO₂ of 40 mm Hg. The patient was intubated and

placed on a mechanical ventilator. The sputum gram stain showed a few macrophages and gram negative rods. Other laboratory findings included the following: hematocrit, 37%; hemoglobin, 12.5 gm/100 ml; and a

Five patients with Legionnaire's disease were seen in a two-year period (1977-1979). Four patients were given erythromycin. Four patients required ventilator support. Two patients died in spite of receiving erythromycin. One died from the acute illness and the other from complications of prolonged ventilator therapy. One patient did not receive erythromycin and recovered completely. Three patients, including one who was immuno-compromised, are described in detail. The essential data of all five patients are summarized.

Legionnaire's disease may occur sporadically as well as epidemically. Therefore, this possibility should be entertained in the differential diagnosis of any rapidly progressive pneumonitis.

Dr. Misra was Instructor in Medicine at the time this paper was written. He is now in private practice in Huntsville, Ala. Dr. Maltby is Associate Professor of Radiology and Dr. Hurst is Associate Professor of Medicine, Department of Medicine, University of Missouri Medical Center and Harry S. Truman Veterans Hospital.



Fig. 1 (Case #1) (A) Initial AP portable film at time of admission shows a massive nonsegmental coalescent air space infiltrate involving most of the right lung. (B) AP film two days later shows panlobar involvement. Note relative hilar sparing on the left. (C) PA chest film two months later shows minimal residual fibrosis at the bases.

of Figs. 1A and 1B showed a minimal residual interstitial infiltrate most prominent in the lower lung fields. Her arterial blood gases at time of discharge were pH of 7.52, PaO₂ of 51 mm Hg and PaCO₂ of 31 mm Hg. The sputum cultures on two occasions during ventilator management yielded *Pseudomonas aeruginosa* and *Klebsiella pneumoniae*. These were thought to be opportunistic organisms.

Case #2 A 68-year-old man, a non-smoker, was admitted on Feb. 1, 1979. One week prior to admission, increasing malaise and shaking chills developed. Three days later, he noticed a mild cough with scanty hemoptysis, increasing fatigue and shaking chills with temperatures up to 38 C-39.5 C. The day prior to admission, he had a temperature of 38.5 C, frequent paroxysms of cough with frank hemoptysis, pleuritic type of chest pain and moderate dyspnea. He was confused and disoriented.

On examination, the heart rate was 115 beats per minute; respiratory rate, 36 per minute; and blood pressure, 124/80 Hg. His temperature was 38 C. Central and peripheral cyanosis was noted. The jugular venous pressure was 8 cm with a negative reflux. Examination of the chest showed decreased vesicular breath sounds with diffuse coarse rales and rhonchi in both bases. Results of the remainder of the physical examination were within normal limits.

Laboratory studies included the following values: hematocrit, 37%; total leukocyte count, 8,100/cu mm with 44% segmented neutrophils and 53% band forms; platelet count, 85,000; blood urea nitrogen, 58 mg/100 ml; serum creatinine, 2.2 mg/100 ml. Arterial blood gases on room air showed pH 7.42, PaO₂ 26 mm Hg, and PaCO₂ 33 mm Hg. The chest roentgenogram (Fig. 2A) showed a diffuse infiltrate with air bronchograms in the lower two thirds of both lung fields. The upper lobe vessels were distended and congested and the heart

total leukocyte count of 9,000 with 10% band forms and 75% segmented neutrophils.

The patient was given 500 mg of ampicillin intravenously every six hours. The next day, 500 mg of intravenous erythromycin every six hours was added to the regimen because of suspected diagnosis of Legionnaire's disease. On this same day, the chest roentgenogram (Fig. 1B) showed the infiltrate to be bilateral, involving all areas of both lung fields, more dense toward the periphery and with some sparing of the perihilar regions. On a FiO₂ of 55% and 10 cm of PEEP, the arterial blood gases showed a pH of 7.40, PaO₂ of 56 mm Hg and PaCO₂ of 33 mm Hg with an oxygen saturation at 90%. The total leukocyte count showed further left shift. The pulmonary capillary wedge pressure was 12 cm of H₂O.

Mechanical ventilation was continued for a total period of six weeks. During her hospitalization, the acute phase titre for Legionnaire's disease was reported to be less than 1:64 whereas the convalescent titre was reported to be 1:3048. Erythromycin was given for a total period of 14 days.

The patient's prolonged hospital stay was uneventful except for an episode of urinary tract infection. A chest roentgenogram (Fig. 1C) taken nine weeks after those

was large. The sputum gram stain showed a few polymorphonuclear leukocytes and occasional gram negative rods.

The patient was intubated and was given mechanical ventilation. Intravenous erythromycin, 50 mg every six hours, and gentamicin, 60 mg every eight hours, were administered. His hospital course was stormy. Six hours after his hospitalization, florid pulmonary edema developed. The pulmonary capillary wedge pressure was 24 cm of H₂O. With the ventilator, 100% FiO₂ and 10 cm of PEEP achieved a PaO₂ of 40 mm Hg. All the sputum and blood cultures were reported to be negative.

His subsequent course included hypotension, acute renal failure, hyperthermia and a low-grade disseminated intravascular coagulation. Gentamicin was discontinued and peritoneal dialysis was instituted. The chest roentgenogram (Fig. 2B) showed clearing of the upper lobe venous congestion and slight decrease in heart size. The dense air-space infiltrate involved all of the right lung and the lower two thirds of the left lung. On the second day, he became asystolic and died.

At necropsy, the lungs showed acute, extensive pneumonia bilaterally with the alveolar spaces obliterated by microscopic inflammatory exudates. Significant intra-alveolar deposition of fibrin was noted with formation of peripheral hyaline membranes. Specific fluorescent antibody staining of lung tissue by C. D. C. revealed the Legionnaire's organism (group 1 Knoxville strain). Dieterle's silver impregnation staining confirmed Dieterle positive intracellular rods.

Case #3 A 76-year-old woman, a non-smoker, was diagnosed as having polymyalgia rheumatica in September, 1979 and was treated with 30 mg of oral prednisone daily. In October, 1979, the diagnosis of rheumatoid arthritis was made and, at that appointment, a decision was made to taper off the steroids. One to two days prior to her clinic appointment, extreme fatigue and weakness developed, but she denied any accompaniment of cough, fever, chest pain, dyspnea or hemoptysis. She had no gastrointestinal symptoms.

On examination, she was found to be alert, cooperative and in no acute distress. The vital signs were as follows: temperature, 35 C; pulse rate, 88 per minute; blood pressure, 140/60 mm Hg; and respiratory rate, 12 per minute. Chest examination revealed vesicular breath sounds with midinspiratory coarse rales in both lower lung bases. There were no rhonchi or wheezes.

Review of the laboratory data showed that the patient did have a hematocrit value of 27% and hemoglobin level of 10.2 gm/100 ml long before her first hospitalization in September, 1979. At this admission, both were low. The total white blood cell count was 14,400/cu mm with 80% segmented neutrophils and 14% band forms. The sputum gram stain showed normal mouth flora. The arterial blood gases on room air revealed a pH of 7.43, PaO₂ of 75 mm Hg and PaCO₂ of 35 mm Hg. A chest roentgenogram (Fig. 3) showed diffuse air space infiltrate involving the lower two thirds of both lungs, predominantly the lower lobes.

On the second day of hospitalization, the patient

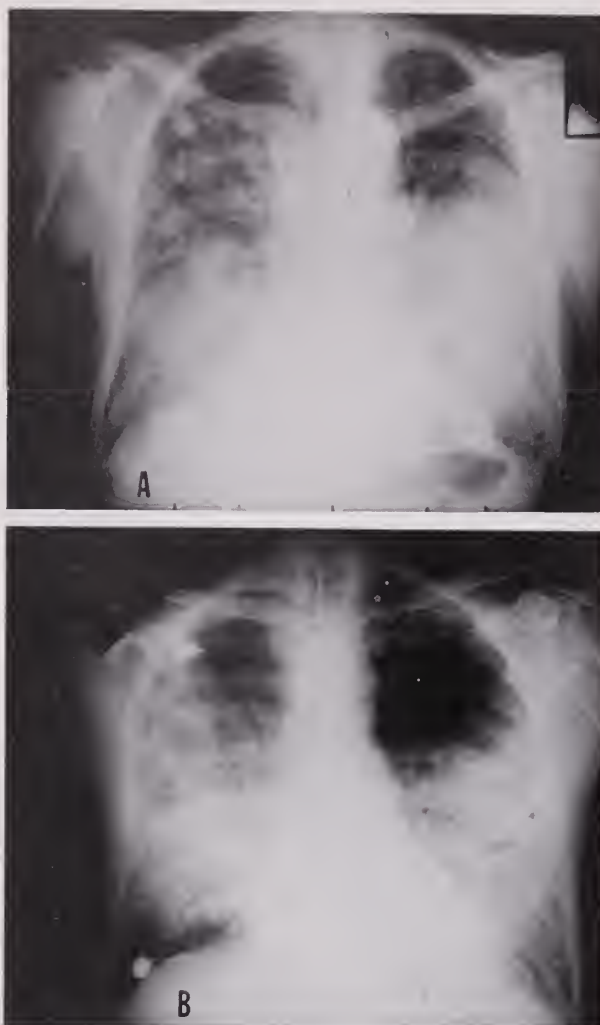


Fig. 2 (Case #2) (A) Initial AP portable chest shows massive bilateral infiltration with air bronchograms. Dilated upper lobe vessels are consistent with associated congestive heart failure. (B) AP chest films next day (date of death) show clearing of pulmonary venous congestion and panlobar involvement with some sparing of left apex.

noticed mild cough with production of blood-tinged sputum. The next day, she was anxious, disoriented and hyperventilating. The arterial blood gases on room air showed at this time a pH of 7.43, PaCO₂ of 35 mm Hg, and PaO₂ of 52 mm Hg. Results of the clinical examination and the chest roentgenogram remained unchanged. She had an episode of gastrointestinal blood loss necessitating transfusion of three units of packed cells. Endoscopy revealed only a mild gastritis. That same day, her temperature spiked up to 39 C. In view of the possible role of opportunistic infections in this immuno-suppressed host, it was decided to administer intravenously 500 mg of ampicillin every six hours, 500 mg of erythromycin every six hours and 80 mg of gentamicin every eight hours.

An open lung biopsy taken from the left lower lobe showed acute and organizing bronchopneumonia along with intraalveolar hemorrhage and acute interstitial pneumonitis. Direct immunofluorescent anti-

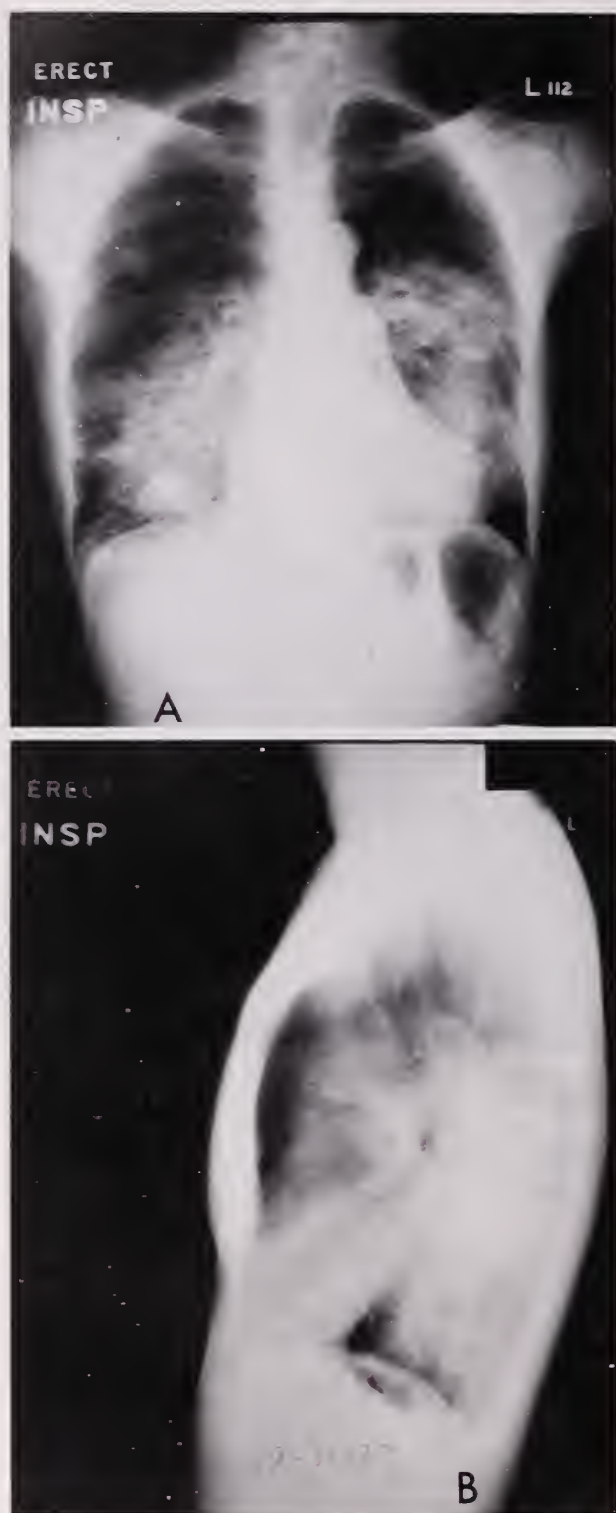


Fig. 3 (Case #3) PA and lateral chest films at admission show bilateral confluent nonsegmental air space infiltrate involving predominantly the lower lobes.

body staining gave a positive result for the Legionnaire's organism. At that time, ampicillin and gentamicin were discontinued. Erythromycin was continued for a total of 14 days. At the time of discharge, the patient was asymptomatic, ambulatory and had a re-

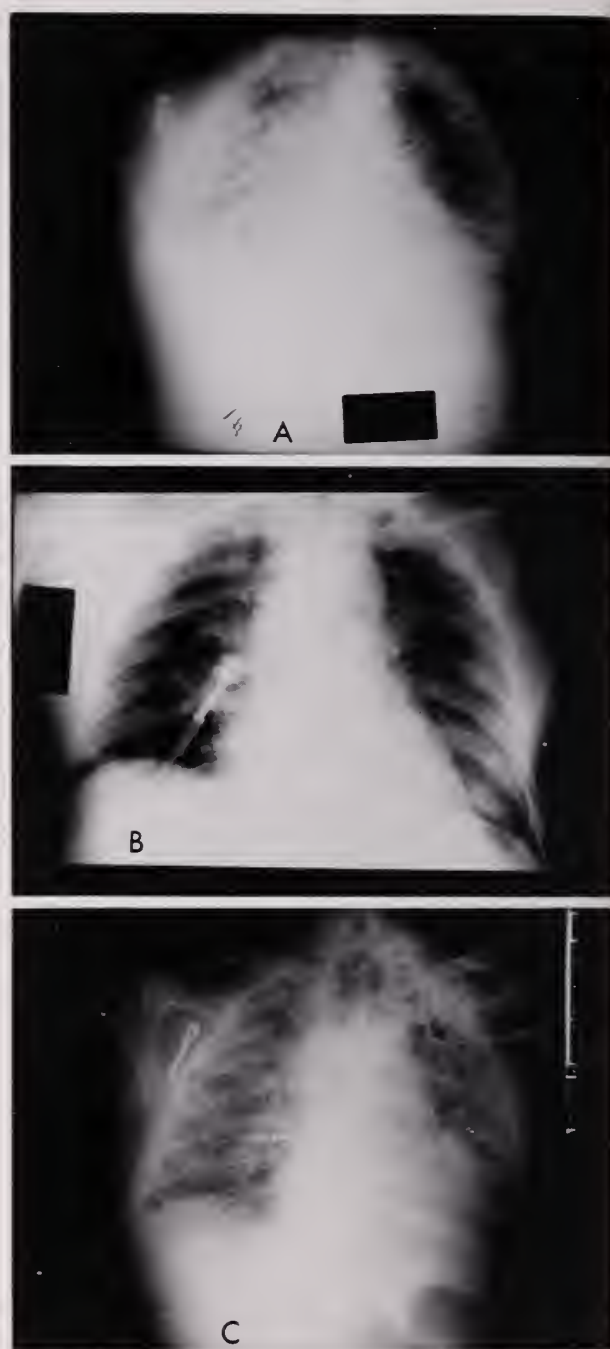


Fig. 4 (Case #4) AP portable chest at admission shows panlobar involvement with relative sparing of periphery of left lung. (B) AP film two weeks later showed good clearing of the diffuse air space infiltrate. Patient could not be weaned from respirator. (C) Two months later, there was a diffuse mixed alveolar and interstitial infiltrate consistent with adult respiratory distress syndrome (ARDS).

solving infiltrate shown on the chest roentgenogram and had a normal arterial blood gas.

DISCUSSION

The clinical features and the laboratory data presented with the above patients' histories are in

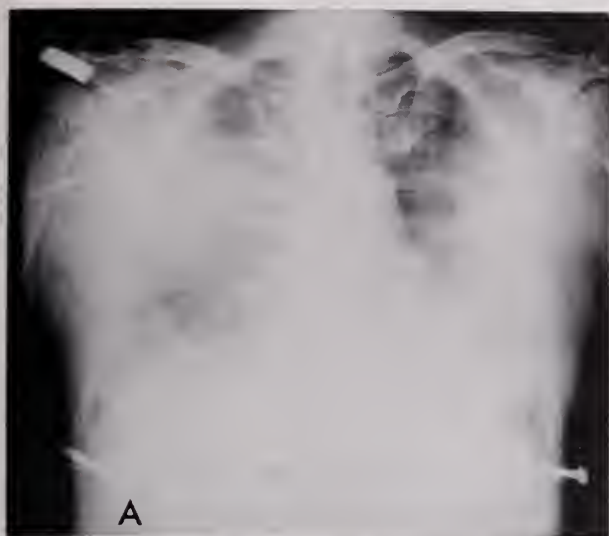


Fig. 5 (Case #5) (A) AP portable film at peak of illness showed diffuse peripheral air space infiltrate with hilar sparing. (B&C) Convalescent PA and lateral chest film nine days later showed partial clearing. Note pleural fluid in the interlobar fissure on the lateral view.

conformity with other sporadic histories reported in the literature.⁵⁻⁹ They are not significantly different from the epidemic form of Legionnaire's disease.^{1-3, 10} Only two of five patients had hemoptysis. None had temperature-pulse dissociation, as noted in other series.^{3, 5} One of five patients had leukocytosis, but all had a significant left shift. The routine sputum examination was not helpful.

The initial Philadelphia epidemic at the Legionnaire's convention in 1976 involved 123 patients. Thirty-four percent of these had initial bilateral infiltrates. Fifty percent eventually had bilateral infiltrates. About one half were described as alveolar and one fourth described as predominantly interstitial. Rapidly progressive pneumonia developed in 55% and pleural effusions in 13%. Eighty-eight percent eventually resolved.¹⁰

Thirty-five cases at Wadsworth VA Medical Center in Los Angeles showed a higher percentage of unilateral involvement (24 out of 35), but a greater percentage with pleural effusion (22 out of 35). Nineteen patients of the total of 35 eventually resolved. Two had residual scarring.¹¹ The Vermont epidemic of 24 patients showed 32% of initial bilateral involvement progressing to 68% bilateral involvement at the peak of the illness. Thirty-nine percent had minimal pleural effusion. Thirty percent showed a predominantly peripheral pattern.¹²

Most of the reported patients demonstrated a predominantly air-space pattern with frequent

rapid progression and with a variable incidence of pleural effusion (13%-63%). Cavitation¹³ and hilar adenopathy occurred rarely. Our patients clearly represent the severe end of the spectrum

TABLE I
SUMMARY OF FIVE SPORADIC CASES OF LEGIONNAIRE'S DISEASE

	Case # 1	Case #2	Case #3	Case #4*	Case #5*
1. Age, race, sex	50, B,F	68, W,M	76, W,F	61, W,M	62, W,M
2. Underlying disease	Diabetes mellitus	—	Polymyalgia rheum. Rh. arthritis	Hist. of coronary Bypass surgery	—
3. Smoking	+	—	—	+	+
4. Travel	—	+	—	—	—
5. Month of onset	9/79	2/79	10/79	3/79	10/77
6. Prehospital illness (days)	7	6	2	10	7
7. Clinical Features					
a) Respiratory symptoms					
cough	+	+	+	—	+
dyspnea	++	++	—	+	+++
chest pain	—	+	—	+	—
hemoptysis	—	+	+	—	+
b) Headache/myalgia	—	+	++	+	+
c) GI symptoms	+	—	—	+	—
d) CNS Symptoms	+	+	+	+	+
e) Pulse/Temperature	120/39.4°C	116/38.5°C	88/35.6°C	112/36.6°C	160/40°C
8. Diagnostic data					
a) WBC count	9600	8100	14400	9000	25800
b) %PMN/Bands	75/10	44/53	80/14	77/8	88/18
c) Anemia	—	—	+	—	—
d) Liver enzymes	LDH 490 SGOT 118 SGPT 86	LDH 337 SGOT 117	LDH 314 SGOT 26	LDH 287 SGOT 20	LDH 588 SGOT 211 SGPT 76
e) Lowest PaO ₂	29	26	52	30	40
f) BUN/Cr.	7/0.3	58/2.2	51/1.8	70/2.2	32/2
g) chest x-ray					
initial	Diffuse rt. lower 2/3 lung	Diffuse bilateral with CHF	Bilat. predomi- nantly lower lobe	Bilat. diffuse	Bilat. diffuse ̄ min. bilat. eff. peripheral
peak	Diffuse bilat.	All zones but left upper	Bilat. predomi- nantly lower lobe	Bilat. diffuse	Bilat. diffuse ̄ min. bilat. eff. peripheral
convalescent	Minimal residual fibrosis	—	Clearing	ARDS	Min. pleural thickening
h) PCWP (in cms)	12	24	Not indicated	6	8
i) Acute titre (IFA)	1:64	Not obtained	Pending	1:32	1:64
j) Convalescent titre (IFA)	1:2048	Not obtained	Pending	1:128	1:256
k) FA		Positive gr 1 Knoxville strain	positive		
9. Therapy					
a) Antibiotics—					
initial	A,G	K	A,E,G	C,E	K,G
later	E	E,G	E	E,R	
b) steroids	IV	IV	30 mg PO (before illness started)	NONE	NONE
c) Ventilator support					
Highest	55%	100%	Not required	80%	60%
FiO ₂ required					
PEEP (in cm)	10	10		20	5
Days	36	2		90	7
10. Complications	None	ARF DIC hypotension	Mild GIH	Interstitial fibrosis Pseudomonas abscesses	NONE
11. Outcome	Recovered	Died	Recovered	Died	Recovered

* Figures 4 and 5
— = absent
A = Ampicillin
R = Rifampin
+ = present
E = Erythromycin

ARF = acute renal failure
++ = moderate
C = Gentamycin
ARDS = Adult respiratory distress syndrome
+++ = severe

K = Keflin
C = Cephazolin
DIC = Disseminated intravascular coagulation
GIH = Gastrointestinal hemorrhage
PCWP = Pulmonary Capillary Wedge Pressure

IFA = Indirect fluorescent antibody t
FA = Positive direct fluorescent antib
tissue exam
BUN = Blood urea nitrogen
Cr = Serum creatinine

with all cases showing bilateral involvement and 80% being panlobar at their peak. One showed a predominantly peripheral pattern with some hilar sparing, the so called "photographic negative of pulmonary edema." One had predominantly lower lobe involvement bilaterally, and one had a bilateral pleural effusion.

The diagnosis for three patients was made by serology and for two patients by direct tissue staining. Serologic diagnosis is always a retrospective diagnosis. Rapid diagnosis by direct lung tissue staining^{14, 15} or identification of the organism from transtracheal aspirate^{16, 17} or pleural fluid¹⁸ is always helpful.

Because of high index of suspicion, four of five patients were treated with erythromycin for two weeks (Table 1). Contrary to the report of Mayock and Bader³ in which no instance of respiratory death was associated with adequate tetracycline or erythromycin therapy, two patients here died in spite of being treated with erythromycin. One died of acute complications of the illness (Case #2) and the other (Case #4) died of complications of prolonged ventilator therapy. Patient #5, who received cephalothin and gentamicin but not erythromycin, made an uneventful recovery. Treatment with erythromycin for at least three weeks is recommended.³

In a review of 18 sporadic cases,⁵ seven patients required mechanical ventilation and three died. In another series,² five of eight patients required intubation and three died. In our series, four of five patients required ventilatory support due to progressive hypoxemia and obtundation. One patient with immunosuppression did not require ventilatory support. Two of our five patients died, one within 72 hours of admission and another after being on the ventilator for 90 days.

CONCLUSION

Any middle-aged or elderly patient, immuno-

compromised or not, with the above signs and symptoms, exhibiting a normal or high leukocyte count with a significant left shift, a rapidly progressive infiltrate on the chest radiograph and a negative sputum, should arouse consideration of a diagnosis of Legionnaire's disease. On this basis, such a patient should be promptly given erythromycin while attempts are made to arrive at a rapid diagnosis. In event of progressive hypoxemia, particularly in the pneumonic stage, ventilatory support is mandatory.

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Role of Prazosin in Moderate Hypertension

In 1976, prazosin was released by the Federal Drug Administration for treatment of hypertension. It was promoted on the basis of arteriolar vasodilation without central nervous system action, cardiodepressor effects or serious orthostatic hypotension.

This study evaluates the clinical use of prazosin in private practice as to effectiveness, mode of administration, side effects and development of tolerance.

PATIENTS AND METHODS

All patients were under the author's care. Prior to their initial treatment for hypertension, the condition of all but seven was thoroughly clinically evaluated. Laboratory and X-ray studies included complete blood count, urinalysis, SMA profile including electrolytes, chest X-ray, electrocardiogram and, in selected patients, rapid injection pyelogram, upright renin determination plus 24-hour urine sodium while on a normal diet, and 24-hour urine VMA or catecholamines. The remaining seven patients who, when first seen had received treatment for established hypertension elsewhere, were similarly evaluated prior to treatment with prazosin.

When necessary, medications were withdrawn for four weeks for special studies. The period of known hypertension before addition of prazosin was from one month to 13 years, mean 34 months,

during which various hypotensive drugs had been used.

Patients included in this study had failed to respond or to sustain a response to thiazide alone or to thiazide plus one or more additional agents, or they had developed various untoward side effects from the drugs prescribed.

Prior to the administration of prazosin and at regular intervals thereafter, measurements of blood pressure were made with a mercury manometer, using the fifth Korotkoff sound to determine diastolic pressure. These determinations were made by a trained registered nurse or the author in a routine fashion and included the following positions: left arm sitting, right arm sitting, right arm recumbent before and after five to ten minutes in a darkened room. At the end of the treatment period, a blood pressure with patient standing was obtained in all but eight.

Prior to the addition of prazosin, all patients were warned of possible syncope or vertigo especially after the first dose. Initial therapy was usually 1 mg three times daily. For adjustment of dosage, the patients were asked to return at two-to four-week intervals during initiation of treatment until a satisfactory and stable normal blood pressure (diastolic 90 or less) was obtained. The satisfactory dose was reached when the lowest blood pressure reached this point even though the other measurements were at a higher level. Thereafter, the patient was followed at three- to six-month intervals. At approximately 12-month intervals, each patient received a complete re-evaluation including health review, complete physical examination, and baseline studies that included SMA 12 plus electrolytes, chest X-ray and electrocardiogram in order to assess the effects of medication or the appearance or progress of significant organ damage.

At each visit, the patient was seen by the author and given the opportunity to discuss side effects of medication or other health problems. Compliance was encouraged by full discussion of the risks associated with hypertension and its symptomatology. An attempt was made to educate each patient as to the importance of adequate treatment. Patients were encouraged to have their blood pressure checked at home or elsewhere.

Prazosin was added to the treatment programs of 54 hypertensive patients because of side effects from previous agents or because of the patient's failure to maintain a blood pressure of 140/90 or less with prior treatment. Of the 43 patients able to take this medication, 39 (91%) achieved a further fall in blood pressure. Twenty-three (59%) reached a level of 140/90 or less. Eleven (20%) were unable to continue to take prazosin because of side effects. This study evaluates the clinical use of prazosin for the private practitioner.

Dr. Challenger is in the private practice of internal medicine.

Cooperation appeared to be satisfactory in most patients, even if they did not return as often as recommended.

RESULTS

In 54 patients, prazosin was added to a thiazide, usually chlorothiazide, or to chlorothiazide plus another hypotensive agent. Eleven patients reported side effects and discontinued treatment, usually because of orthostatic syncope. Four patients failed to respond.

In 39 patients, a fall in both systolic and diastolic blood pressure was obtained. Twenty-three (59%) reached a satisfactory blood pressure of 140/90 or less without side effects. The average blood pressure of patients prior to the addition of prazosin and at the end of the study are recorded in Tables 1 and 2. Table 1 lists 14 patients treated for one to six months. Table 2 lists 25 patients under treatment for seven to 29 months. In the latter group, the blood pressure prior to the addition of prazosin to previous therapy with diuretics plus other drugs as listed was 174/100. After addition of prazosin, it was 157/92. The average lowest blood pressure at the end of the treatment period was 138/87. These figures are similar to those obtained in the group of patients treated from three to six months.

There was very little change in the mean dose of prazosin after the maintenance dose was established. These results compare favorably with those obtained by other investigators.¹⁻¹⁵

DISCUSSION

Prazosin (Minipress, Pfizer), (4-amino-6, 7 dimethoxy-2-quinzoliny)-4 (2-furoyl) piperazine hydrochloride, was originally conceived and synthesized as a smooth muscle arteriolar vasodilator¹⁶ and was approved by the FDA for treatment of hypertension in 1976.¹⁷ Studies of sites of action demonstrated "that prazosin acts by interference with peripheral sympathetic function and that it is devoid of direct vasodilator activity."¹⁸ Graham and Pettinger reviewed this data and concluded that the relative lack of tachycardia or increase in renin release was due in part to the drug's combined action on arteriolar and venous beds resembling the action of nitroprusside.¹⁹ It is generally accepted now that prazosin is a postsynaptic alpha adrenergic blocker.

For treatment of most hypertension, a vasodilator is theoretically preferred. In the past, the effectiveness of known vasodilators has been limited by the homeostatic compensatory mechanism that results in increased cardiac output, increased renin and increased plasma volume.

Clinical studies showed that prazosin lends itself especially well to combination therapy²⁰ because its effects in lowering blood pressure are additive to many drugs including diuretics, beta blockers, clonidine, methyldopa, hydralazine and reserpine.^{21, 22} Failure to respond to prazosin alone may indicate an increase in plasma volume which may be overcome by the addition of a diuretic.²³

TABLE 1
PATIENT'S TREATED THREE TO SIX MONTHS

Age	Mean BP Before Rx	Drugs Used*	Months Rx'd	Mean BP Before Prazosin	Drugs Used*	Initial Eff. Dose in mg	Months Rx'd	Mean Latest BP	Lowest BP	Dose in mg	Standing BP
49	142/92	T	3	148/101	TM	2	3	144/96	132/80	2	—
49	190/116	TSAPH	36	190/110	TMP	5	5	194/110	152/100	5	150/100
78	200/111	TSP	73	178/96	TMP	3	6	168/89	154/94	3	—
68	158/108	TP	30	186/108	TM	3	4	170/87	176/84	3	—
58	157/98	TS	12	150/94	TM	3	6	144/88	134/78	3	—
55	229/128	T	4	216/114	TM	2	2	182/100	160/92	2	160/98
67	181/116	T	9	155/106	TM	2	5	144/87	130/80	2	118/88
53	164/105	T	12	165/106	TM	2	3	138/94	132/92	2	140/98
69	170/103	TAPH	60	160/100	TM	2	5	128/82	116/80	2	138/92
75	173/101	TPH	54	199/100	TM	1	3	164/99	144/94	1	146/96
34	156/101	T	37	163/106	TM	1	3	160/98	160/92	1	160/110
65	177/110	TAH	94	144/98	TM	1	3	178/97	162/94	1	154/100
70	216/116	T	6	176/106	TM	4	5	170/88	150/90	4	150/90
55	170/109	T	1	180/98	TM	1	1	138/90	126/70	1	130/70

* T thiazide at dose approximately equivalent to chlorothiazide 500 mg.
S reserpine .25 — .50 mg; mean .375 mg
A methyldopa 250 — 1500 mg; mean 812 mg.

P propranolol 30 — 320 mg; mean 150 mg.
H hydralazine 75 — 150 mg; mean 100 mg.

TABLE 2
PATIENTS TREATED 7 TO 29 MONTHS

Age	Mean BP Before Any Treatment	Drugs Used*	Months Treated	Mean BP Before Prazosin	Drugs Used*	Initial Effective Dose in mg.	Months of Treatment	Mean Most Recent BP Sitting or Recumbent	Lowest BP Limiting Treatment	Standing BP	Dose at End of Treatment in mg
64	178/115	TSH	67	195/103	TM	15	22	157/99	135/85	135/85	15
50	206/97	D	12	212/87	TM	1	8	186/94	170/80	188/90	1
62	206/97	T	34	192/100	TM	3	24	142/86	122/80	124/86	3
56	178/115	TA	24	146/104	TM	3	8	148/97	134/92	—	3
61	152/122	TAPH	12	133/103	TM	6	29	130/90	126/90	136/90	6
54	164/103	TAP	50	165/112	TM	15	22	142/87	130/90	130/90	15
55	—	TS	37	163/101	TM	3	15	163/97	148/95	148/95	3
57	169/96	TSH	51	176/75	TM	15	12	160/90	135/86	138/86	15
51	176/93	T	1	160/102	TM	3	15	152/90	120/90	120/90	5
52	149/112	TAC	23	145/105	TM	3	18	136/98	130/90	140/90	3
50	195/115	TPHCl	71	205/122	TMP	15	31	152/85	136/90	136/90	15
64	175/105	TS	3	195/106	TM	6	22	152/94	136/90	—	6
67	179/105	TP	20	151/102	TM	6	29	150/96	120/90	120/90	15
77	155/110	TSAH	42	153/105	TM	1	25	180/104	170/80	170/80	1
65	187/117	TP	36	184/103	TM	15	17	169/110	146/100	—	15
53	166/109	TPH	54	155/101	TMP	15	19	166/196	130/90	130/90	15
67	151/94	T	35	188/104	TM	3	13	173/94	150/80	150/80	3
77	215/85	T	9	194/92	TM	3	23	170/77	160/80	160/80	6
52	159/101	TP	30	160/106	TM	3	7	134/81	130/80	132/92	3
52	145/99	T	1	145/95	TM	3	11	150/87	115/85	115/85	3
74	—	T	9	175/99	TM	3	12	156/86	130/80	130/80	3
75	170/95	T	50	175/94	TM	1	7	172/91	145/90	145/90	1
73	—	TS	—	179/92	TMP	3	29	182/97	178/85	162/90	3
51	154/97	T	1	159/101	TM	3	15	152/90	120/90	120/90	5
45	—	TSH	32	185/100	TM	3	29	160/82	130/70	130/70	3

* T thiazide approximately equivalent to 500 mg chlorothiazide; S reserpine 0.3—0.75 mg, mean 0.6; A methyl dopa 750—1500 mg, mean 575 mg; P propranolol 40—320 mg, mean 155 mg; H hydralazine 25—200 mg, mean 59 mg; C clonidine 0.1 mg; I guanethidine 35—75 mg, mean 55 mg; D tramterine with chlorthalidone 50 mg

In the presence of coronary artery disease, the use of a beta blocker prior to the initiation of prazosin may decrease the risk of angina.²⁴ Drug interactions tend to be favorable, especially with the combination of prazosin, thiazide and a beta blocker. This combination is often effective in resistant hypertension. Side effects are few and the drug is safe in far advanced renal disease.²⁵ Although not all patients reach a normal blood pressure with addition of prazosin, a significant further fall in blood pressure has been found in 50% and normal levels in at least 50%.²⁶ The maximum effective dose is 15 mg²⁷ to 20 mg²⁸. There appears to be no significant difference in effectiveness with regard to age, dose, percent with severe disease or type and dose of adjunctive treatment.²⁹

FIRST DOSE PHENOMENA AND SIDE EFFECTS

Although the list of possible side effects is large,³⁰ most attention has been focused on the "first dose phenomena" which is probably caused by the initial steep fall in blood pressure. This

effect is well described by Turner who studied 100 patients in circumstances similar to that of clinical practice and found this to occur early in treatment and to be both mild and transient. Most often reported side effects were dizziness or faintness, palpitation and/or tachycardia, chest pain, blurred vision, nausea and gas, somnolence at first, depression, dyspepsia and insomnia in 46 of 100 subjects. Only 5% discontinued the medication because of these.³

Of special note, however, are rare reported instances of severe hypotension when nitroglycerin was used by patients receiving prazosin and of increased angina in patients with coronary artery disease.³¹ A few bizarre possible side effects reported by Bolli included headache, agitation when used in conjunction with chlorpromazine, aggravation of Raynaud's phenomenon, paroxysmal sinus tachycardia and peculiar dreams, some of which occurred during treatment which included additional drugs.³² Amelioration of Raynaud's phenomenon was reported, however, by Waldo.³³ In a panel discus-

sion, Kincaid-Smith, drawing on an experience of more than 500 patients over five years, noted that it was difficult to draw the line between effect and side effect in relation to hypotensive effects of prazosin and that those who had been taking prazosin who did not develop side effects in the initial period did not seem to develop them later.³⁴

INITIATION OF TREATMENT

Various methods of initiating treatment with prazosin have been advocated. If a diuretic has been given before beginning prazosin, perhaps as part of the step program advocated by the Joint National Counsel on Protection, Evaluation and Treatment of High Blood Pressure,³⁵ my experience indicates considerable caution in the introduction of this potent drug. I now begin treatment with 1 mg at bedtime for several days before increasing the dose. In older patients, I recheck blood pressure before increasing the dose.

SPECIAL USES

In addition to essential hypertension, prazosin has been shown to be safe and effective for treatment of hypertension in the presence of severe renal disease, for acute hypertensive encephalopathy, and during preoperative preparation of patients with pheochromocytoma. On occasion, the addition of prazosin to patients requiring several drugs, including high doses of guanethidine, will permit withdrawal of guanethidine.³⁶ One such patient is included in this study.

COMMENT

Although hypertension is common throughout the world, its cause in most patients is unknown. Genetic factors appear to play an important role. Evidence is accumulating that early in its inception, there is high cardiac output, but even in patients with known hypertension for only a few years, increased peripheral vascular resistance is present at least during exercise. Lund-Johansen compared a series of age groups of hypertensive men with similar age groups of normotensive controls. The younger hypertensives, age 17-29, had significantly higher cardiac index compared to their control group and to the oldest hypertensive group age 50-56, whereas the older hypertensive group had elevated total peripheral resistance compared to both their control group and the younger hypertensive group. The older group presumably had been hypertensive for a longer period.³⁷

Once established, the elevated blood pressure

seems to be defended by various homeostatic mechanisms that tend to overcome the effects of hypotensive agents. In reviewing the histories of many of the patients in this study who had been under treatment for five to 12 years, a pattern of response to treatment became clear. Most patients responded well to initial therapy, usually with a thiazide. Within a few months or years, the blood pressure then returned to levels nearly as high and often higher than that obtained before initial treatment. The addition of a second drug, such as methyldopa, spironolactone or hydralazine, usually resulted in a second good response which often was maintained for a similar period of months. At times, a third agent was added. The number of drugs being used prior to institution of prazosin therapy ranged from one to six with a mean of 2.2.

The patients included in this study had developed distressing side effects to some of these agents such as depression, nightmares, sexual dysfunction, etc. or had elevation of their blood pressure greater than 140/90 despite previous medication. Because of the pattern of late development of resistance to hypotensive agents described above, the evaluation of a new drug must be carried out over an extended period of time; its role in management of hypertension must be evaluated in light of this common occurrence.

Prazosin is not a mild agent. The literature provided by Pfizer understates its effectiveness. It must be used with caution after careful evaluation of each patient and with full knowledge of its special properties. A recent set of guidelines, "Practical Tips on Management with Prazosin,"³⁸ will help the practitioner utilize this drug in a proper and safe manner. The combination of prazosin, a thiazide and a beta blocker will enable one to successfully control elevated blood pressure in a high percent of patients with mild and severe hypertension with minimal side effects.³⁹

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AMA Delegates to Meet in San Francisco

The 1980 Interim Meeting of the House of Delegates of the American Medical Association will be held on December 7-10 in San Francisco (San Francisco Hilton Hotel).

The official call for the December meeting is published in the October 3 *Journal of the American Medical Association*.

The 279 delegates will represent state medical associations, national medical specialty societies, resident physicians, medical students, medical schools, medical corps of the Army, Navy and Air Force, Public Health Service and Veterans Administration.

The delegates will consider a variety of proposals to govern the affairs of the AMA in 1981 and beyond.

Robert B. Hunter, M.D., of Sedro Woolley, Wash., is AMA president. Speaker of the house is William Y. Rial, M.D., of Swarthmore, Pa. Secretary-treasurer of the AMA is William S. Hotchkiss, of Norfolk, Va.

Smoking and Pregnancy Outcome

IN 1957, Simpson¹ first discovered a relationship between cigarette smoking and birth weight. She found that babies born to mothers who smoked during pregnancy weighed significantly less than babies born to nonsmokers. In the ensuing 22 years, a considerable number of studies have investigated that relationship.

According to the 1979 United States Surgeon General's Report *Smoking and Health*,² more than 45 studies of more than a half million births have confirmed Simpson's original finding that maternal smoking reduces birth weight. In addition, numerous studies have found that smoking possibly increased the risk of other bad pregnancy results as well.³⁻¹¹

This study uses 1978 Missouri resident births to test some of the findings of other studies done on this subject. Pregnancy outcomes studied will include prematurity rates, birth weights, preterm rates, perinatal mortality, the incidence of selected complications of pregnancy and labor, malformations and rates of low Apgar scores.

METHODS

The data utilized in this study are drawn from birth certificates for all live births occurring in 1978 to Missouri residents. All multiple births and births with unknown maternal smoking characteristics were excluded from consideration, leaving 68,115 in the study sample. Approximately 4% of Missouri's resident live births were missing the smoking item. Most of these births occurred outside Missouri as surrounding states do not include a smoking item on their birth records. In fact, Missouri and New York City are currently the only reporting areas in the nation having a smoking item on birth certificates. Missouri added this item in 1978 along with mother's height and prepregnancy weight, and child's Apgar score, all of which are also included in this study.

Initially, a cross-tabulation of various demographic and socioeconomic indicators with maternal smoking levels was run in order to determine what variables might influence an association between smoking and pregnancy outcome.

As Table 1 shows, 31.3% of Missouri's 1978

"Do babies born to mothers who smoke during pregnancy weigh significantly less than babies born to nonsmokers?" This and comparable questions are answered in this 1978 Missouri survey of the relationship between cigarette smoking and complicated pregnancies. Results show numerous, interesting patterns and comparisons in the pregnancy outcomes of smoking vs nonsmoking mothers.

Mr. Schramm is Director, Bureau of Health Data Analysis, Missouri Center for Health Statistics.

births involved mothers who smoked. This is somewhat lower than many of the studies mentioned in the 1979 Surgeon General's report, but it is still a substantial minority. Of these smoking mothers, approximately 42% smoked one package of cigarettes or more per day during pregnancy.

In general, mothers in lower socioeconomic classes smoked more than their counterparts in higher classes. Approximately half of Missouri mothers with less than a high school education and who delivered during 1978 smoked during pregnancy compared with an 11% smoking rate for mothers with college degrees.

Although the relationships are not as strong as for the education variable, unmarried mothers tended to smoke more than married mothers, mothers with inadequate prenatal care smoked more than mothers with adequate care, and mothers of smaller height and weight smoked more than mothers of larger stature (Table 1). Prepregnancy weight appears to be more strongly associated with smoking habits than the mother's height.

As Table 1 shows, a larger proportion of Missouri black mothers smoked compared to white mothers. However, white mothers who smoke tended to be heavier smokers than nonwhite smoking mothers.

Other interesting patterns shown in Table 1 are that teenage mothers smoked cigarettes at twice the rate of mothers in their late 20s or early 30s.

Also, older mothers having higher order births tended to be heavier smokers than women falling into other age and birth order categories. Table 1

TABLE 1
PERCENT DISTRIBUTIONS OF SELECTED BIRTH
CHARACTERISTICS BY MOTHER'S SMOKING
LEVEL

	N	Smoking Level		
		NONE	<1 PACK	1+ PACKS
Race of Child				
White	58,330	69.7	16.1	14.2
Black	10,541	61.7	29.7	8.6
Other	685	82.6	11.7	5.7
Age of Mother				
Under 20	12,227	57.2	28.7	14.1
20-24	24,198	66.4	19.5	14.1
25-29	21,079	75.2	13.3	11.6
30-34	9,070	74.2	13.1	12.7
35 and Over	2,979	70.7	13.3	16.0
Gravidity				
1st	26,352	71.0	19.0	10.0
2nd or 3rd	33,196	68.4	17.6	14.1
4th or More	10,008	63.6	17.5	18.9
Education of Mother				
0-8	2,695	51.1	21.9	27.1
9-11	15,189	48.4	29.1	22.5
12	31,334	70.7	17.1	12.3
13-15	11,404	78.4	13.8	7.7
16+	8,827	89.0	7.5	3.5
Marital Status				
Married	58,117	72.0	15.5	12.5
Unmarried	11,439	51.6	31.5	16.9
Mother's Height				
Under 62 In.	8,310	65.8	19.6	14.6
62-65 In.	37,039	68.6	18.2	13.2
66-69 In.	22,236	69.8	17.5	12.7
70+ In.	1,650	70.7	16.1	13.3
Prepregnancy Wt.				
Under 110 Lbs.	12,666	61.0	23.4	15.7
110-129 Lbs.	23,127	69.2	18.1	12.7
130-149 Lbs.	18,699	71.5	13.3	15.4
150+ Lbs.	14,592	70.7	15.9	13.4
Prenatal Care				
Adequate*	55,909	71.4	16.5	12.1
Inadequate	13,647	57.6	24.7	17.7
Trimester Prenatal Care Began				
1st	54,479	71.3	16.6	12.1
2nd	12,036	60.3	23.3	16.5
3rd	2,174	56.9	24.0	19.1
No Care	605	48.8	26.8	24.5
Sex				
Male	35,757	68.7	18.2	13.1
Female	33,799	68.6	18.1	13.3
Number Born				
Singleton	68,115	68.6	18.1	13.2
Multiple	1,441	69.0	17.6	13.4
Total	69,556	68.7	18.1	13.2

* Prenatal care beginning in first four months of pregnancy with at least 5 visits for full term deliveries and at least 5 visits for preterm deliveries.

also indicates that there is no apparent relationship between smoking and delivering a male baby or delivering multiple births.

In summary, several variables are highly correlated with maternal smoking levels. Among the variables most strongly correlated are race, education of mother, age of mother and parity, prenatal care and prepregnancy weight. Many of these variables are highly correlated with each other as well as with several of the pregnancy outcome variables to be used in this study. It is neither possible nor necessary to control for all of these variables when testing the relationship between smoking and pregnancy outcome for two basic reasons. First, the numbers would be too small to be reliable when broken into so many different cells. Second, because of the high correlations with each other, little additional information is added after two or three variables have been entered into the calculation.

In order to determine the best intervening variables to use, several combinations of the most correlated variables with smoking found in Table 1 were adjusted for calculating white prematurity rates by mother's level of smoking. Before adjustment, the rate of prematurity was two and one half times greater for mothers smoking more than a pack of cigarettes per day during pregnancy than the rate of prematurity for nonsmoking mothers. Variables which reduced this ratio the greatest were (1) education of mother and (2) prepregnancy weight. Other variables had little effect on the result once these two variables had been taken into account.

Therefore, education of mother and mother's prepregnancy weight will be controlled for testing the relationship between mother's smoking habits and birth weight and gestational age. For testing the relationship between smoking level and perinatal mortality, malformations and complications of pregnancy and labor, only education of the mother will be used because of the small numbers involved. All data will also be broken out by race. The direct method for standardization will be used in calculating standardized rates with the 1978 total live birth distribution being used as the standard.

Significance tests on standardized rates utilized a method developed by Kleinman¹² for age-adjusted death rates.

RESULTS

Birth Weight and Gestational Age

The Missouri Study confirms the findings of

TABLE 2

STANDARDIZED PREMATURE AND PRETERM RATES PER 100 LIVE BIRTHS BY MOTHER'S SMOKING LEVEL BY RACE BY MOTHER'S EDUCATION LEVEL AND PREPREGNANCY WEIGHT

	N	Premature Rate Smoking Level			Preterm Rate Smoking Level		
		NONE	<1 PACK	1+ PACKS	NONE	<1 PACK	1+ PACKS
Education Adjusted for Prepregnancy Weight							
White							
0-11	12,941	5.0	9.0	10.3	8.3	9.9	10.0
12	26,530	3.5	6.4	7.6	5.5	7.0	7.0
13+	17,244	3.1	4.1	7.2	4.7	4.8	6.5
Nonwhite							
0-11	4,395	10.3	16.7	19.4	17.2	19.0	20.0
12	3,946	8.7	14.9	18.9	12.9	16.5	16.6
13+	2,456	6.8	15.6	17.8	8.6	12.7	12.4
Pregpregnancy Weight Adjusted for Education							
Whites							
<110 Lbs.	10,187	6.5	11.3	15.1	8.0	9.6	11.8
110-129 Lbs.	19,401	3.6	6.9	8.4	6.1	7.8	7.3
130-149 Lbs.	15,470	3.0	4.0	5.8	5.1	5.7	6.4
150+ Lbs.	11,657	2.7	4.4	4.9	5.2	5.6	6.1
Nonwhites							
<110 Lbs.	2,279	12.5	22.5	25.0	14.8	19.6	19.0
110-129 Lbs.	3,219	9.0	17.4	19.9	13.6	18.0	14.7
130-149 Lbs.	2,776	7.7	13.2	16.4	11.9	13.2	18.5
150+ Lbs.	2,523	5.3	9.6	14.3	10.7	13.4	13.4
Total white	56,715	3.8	6.4	8.2	6.0	7.1	7.6
Total nonwhite	10,797	8.5	15.6	18.7	12.7	16.0	16.2

other studies that smoking during pregnancy is most strongly related to the increased risk of prematurity (less than 2,500 gm) by weight (Table 2). For both white and nonwhite births, the rate of prematurity is nearly double among babies born to smoking mothers compared to nonsmoking mother's babies.

Smoking also apparently increases the risk of having a preterm (less than 37 weeks gestation) delivery, but the difference in rates between smoking and nonsmoking Missouri mothers was around 25% for this pregnancy outcome for both races. Buncher⁵ estimated that only about 10% of the difference in birth weights between babies of smoking and nonsmoking mothers was due to earlier deliveries among the smokers. Ninety percent was due to factors related to developing "small for dates" babies.

Table 2 illustrates the increase dosage effect smoking has on prematurity and preterm rates. For every race, education and prepregnancy weight category, babies born to mothers who smoke more than a pack of cigarettes per day have higher premature rates than mothers who smoke less than a pack. However, the differences in

premature rates between light and heavy smokers is much less than the difference between light smokers and nonsmokers. The white premature rate for mothers who smoked less than a pack per day was 68% higher than the rate for nonsmokers. By comparison, those white mothers who smoked more than a pack per day had a premature rate 28% higher than the light smoker.

Preterm rate relationships by nonsmokers,

TABLE 3
MEAN BIRTH WEIGHTS BY GESTATIONAL AGE BY RACE ADJUSTED FOR EDUCATION AND PREPREGNANCY WEIGHT BY MOTHER'S SMOKING LEVEL

Gestational Age (Weeks)	Mean Weight (Grams) SMOKING LEVEL			
	N	None	<1 Pack	1+ Packs
White				
32-36	2,943	2,937	2,779	2,689
37-41	37,436	3,489	3,305	3,228
42+	15,097	3,654	3,445	3,374
Nonwhite				
32-36	1,243	2,831	2,641	2,560
37-41	7,065	3,266	3,098	3,078
42+	2,069	3,386	3,200	3,133

light smokers and heavy smokers are similar to premature rate patterns but not as strong.

The relationship of smoking to prematurity appears to remain the same regardless of mother's education level or weight. The differences in premature rates by smoking level are slightly larger for white mothers who weigh less than 110 lbs and do not have a high school diploma, but the differences are slightly smaller for nonwhite mothers with these same characteristics.

This finding contradicts the study of Comstock

*et al*⁷ who found a much larger difference in premature rates by mother's smoking habits among mothers of lower education levels than among higher educated mothers. Lubs¹⁰ found a greater difference in premature rates by mother's smoking level among nonwhites than among whites, a finding which is not supported in the 1978 Missouri data.

Babies born to smoking mothers weigh on the average over 200 gm less than babies born to nonsmoking mothers regardless of gestational age (Table 3).

Meyer and Tonascia⁸ suggested that this reduction in birth weight among smoking-related pregnancies may be an adaptive mechanism used to aid fetal survival because of reduced oxygen exchange. This adaptive mechanism is also found in high-altitude deliveries. Meyer and Tonascia found no difference in neonatal death rates between smoking- and nonsmoking-related pregnancies for babies of the same gestational age. Table 4 also shows little difference in gestational age-adjusted neonatal death rates among 1978 Missouri births. This lack of difference in neonatal mortality rates occurs despite the fact that the babies born to smoking mothers weigh much less than the babies born to nonsmoking mothers of the same gestational age. Meyer and Tonascia further reasoned that increased neonatal mortality in smoking-related pregnancies was due entirely to the shortened gestational ages of these pregnancies rather than to their reduced birth weight. This seems surprising in view of the greater impact smoking appears to have on birth weight compared with gestational age.

Perinatal Death Rates

Table 5 shows statistically significantly higher rates of perinatal (fetal plus neonatal) deaths for

TABLE 4
RESIDENT NEONATAL DEATHS AND RATES BY RACE BY LENGTH OF PREGNANCY BY MOTHER'S SMOKING HABITS

Length of Pregnancy (Weeks)	NEONATAL DEATHS		NEONATAL DEATH RATE	
	Nonsmoker	Smoker	Nonsmoker	Smoker
<i>Whites</i>				
<28	72	43	590.2	500.0
28-31	36	34	162.2	183.8
32-36	42	23	22.6	20.9
37-39	28	18	2.8	4.0
40-41	37	20	2.2	3.1
42+	32	12	3.0	2.6
Total	247	150	6.3	8.9
(Adjusted for Length of Pregnancy)			6.3	6.6
<i>Nonwhites</i>				
<28	41	33	630.8	578.9
28-31	16	19	144.1	186.3
32-36	13	15	18.3	28.1
37-39	14	4	6.3	3.0
40-41	18	4	7.9	3.3
42+	8	2	6.0	2.7
Total	110	77	16.3	19.4
(Adjusted for Length of Pregnancy)			16.3	14.3

TABLE 5
NUMBER AND RATE* OF FETAL, NEONATAL AND PERINATAL DEATHS BY RACE
BY MOTHER'S SMOKING HABITS

	Fetal Deaths		Neonatal Deaths		Perinatal Deaths	
	NONSMOKER	SMOKER	NONSMOKER	SMOKER	NONSMOKER	SMOKER
WHITES	241	147	262	158	503	304
NONWHITES	71	62	114	76	185	138
	Fetal Deaths Rate		Neonatal Deaths Rate		Perinatal Deaths Rate	
	NONSMOKER	SMOKER	NONSMOKER	SMOKER	NONSMOKER	SMOKER
Whites	6.3	8.4	6.8	8.4	13.1	16.8
Nonwhites	10.2	18.0	17.0	17.5	27.2	35.5

* Rate per 1,000 live births.
Total rate adjusted for education level.

DEFINITIONS.

Fetal Death — Stillbirth 20 weeks or older.
Neonatal Death — Dying within first 27 days of life.
Perinatal Death — Fetal plus neonatal death.

TABLE 6
NUMBER AND RATE OF NEONATAL DEATHS BY RACE BY CAUSE OF DEATH
BY MOTHER'S SMOKING HABITS

	Number			
	WHITE Nonsmoker	WHITE Smoker	NONWHITE Nonsmoker	NONWHITE Smoker
Infectious Dis. (000-136, 470-474, 480-486)	12	6	6	8
Malformations (740-759)	63	34	16	8
Respiratory Dis. of Newborn (776)	96	60	48	36
Immaturity, Unqualified (777)	15	12	12	10
Other Early Infancy Dis. (760-775, 778-779)	65	37	25	14
All Other	14	10	10	2
Total	265	159	117	78
DEATH RATES PER 1000 LIVE BIRTHS				
Infectious Diseases	0.3	0.3	0.9	2.0
Malformations	1.6	2.0	2.3	2.0
Respiratory Dis. of Newborn	2.4	3.5	7.0	8.9
Immaturity, Unqualified	0.4	0.7	1.7	2.5
Other Early Infancy Diseases	1.6	2.1	3.6	3.5
All Other	0.4	0.6	1.5	0.5
Total	6.6	9.2	17.0	19.3

Note: ICDA-8 codes are in parentheses.

smoking mothers compared with nonsmoking mothers for both white and nonwhite pregnancies. The perinatal death rate for white smoking-related pregnancies was 16.8 per 1000 live births or 28% higher than the 13.1 rate reported for nonsmoking related pregnancies. For nonwhites, the comparable difference in perinatal mortality by mother's smoking habits was 31% (35.5 vs 27.2).

Higher rates for smoking-related pregnancies are also reported for each of the components of perinatal mortality (i.e. fetal and neonatal mortality rates). For white pregnancies, the risk of a fetal death was 33% greater among smoking mothers

while the risk of a neonatal death was 24% greater among smoking mothers compared with nonsmoking mothers. Nonwhite pregnancies show a much greater variation in death rates by smoking habits by type of perinatal death than white pregnancies do. This is probably due to the smaller number of nonwhite deaths involved. The difference in nonwhite neonatal death rates by maternal smoking habits shown in Table 5 is not statistically significant at the .05 level.

Causes of fetal death most associated with smoking are conditions of the placenta such as premature separation along with immaturity, unqualified. Fetal death rates for these causes are

TABLE 7
NUMBER AND PERCENT OF COMPLICATIONS OF PREGNANCY BY RACE
BY SMOKING HABITS ADJUSTED FOR EDUCATION LEVEL

Pregnancy Complication	Number of Cases		Percent	
	NONSMOKER	SMOKER	NONSMOKER	SMOKER
Whites				
Hemorrhage	171	121	0.41	0.72
Premature Rupture Membranes	170	132	0.43	0.70
Preeclampsia	841	254	2.20	1.39
Other Complication	1,350	635	3.47	3.61
Any Complication	2,532	1,142	6.52	6.43
Nonwhites				
Hemorrhage	32	19	0.50	0.46
Premature Rupture Membranes	67	63	0.95	1.64
Preeclampsia	246	119	3.51	2.76
Other Complication	409	234	6.01	5.83
Any Complication	757	435	10.97	10.69

nearly double among smoking-related pregnancies than for nonsmoking related pregnancies.

Table 6 shows that causes of neonatal death most related to smoking are respiratory disease and immaturity. Conditions such as malformations show no significant relationship to maternal smoking habits. The results shown in Table 6 confirm previous findings that smoking decreases birth weight and gestational age and, therefore, increases the risk of respiratory disease of the newborn.

Complications of Pregnancy

Table 7 shows there was no significant difference in total complications of pregnancy between smokers and nonsmokers. However, smokers tended to have a higher proportion of hemorrhage cases and premature rupture of membranes. These two complications are extremely serious as the neonatal death rate for babies born to mothers with these complications is ten times greater than the average pregnancy.

As other studies^{3, 4, 9} have found, smoking mothers have a reduced risk of developing preeclampsia. White mothers who smoke are 37% less likely to develop this complication than nonsmoking white mothers while nonwhite smoking mothers are 21% less likely to develop preeclampsia than nonsmoking mothers. It also appears that the more a woman smokes, the less likely she is to develop preeclampsia.

The agent in tobacco smoke that brings this about may be cyanide, by its metabolism to thiocyanate, which lowers blood pressure.³

This relationship raises the question of whether a woman with a history of preeclampsia should continue smoking during pregnancy. Which is the greater risk, prematurity or preeclampsia? The answer to this question deserves further investigation.

It should be noted that the reporting of complications on Missouri's birth certificates are not subject to rigid control and, therefore, are assumed to be underreported. However, the results of the Missouri study regarding the relationship between smoking and complications of pregnancy do confirm other studies in which the reporting of complications was more rigidly controlled.

Other Pregnancy Outcomes

Total complications of labor are not greatly influenced by maternal smoking during pregnancy. However, the risk of certain types of complica-

tions of labor does appear to be greater among smoking mothers. These include placenta previa or antepartum hemorrhage, premature membrane rupture, umbilical cord complication and fetal distress.

Smoking during pregnancy either reduces or has no effect on fetopelvic disproportion, malpresentation of fetus or prolonged labor. The reduction of fetopelvic disproportion among smokers is consistent with the finding of reduced birth weight for smoking-related pregnancies mentioned earlier.

No statistically significant difference between smokers and nonsmokers was found in the rate of low (less than 8) Apgar score at one minute. At five minutes, the rate of low Apgar score was about 19% higher among smokers. O'Lane¹¹ also found a slightly lower Apgar rating among smokers.

As Fig. 1 shows, Missouri's smoking mothers were more likely to have a malformed baby than nonsmoking mothers. However, the differences (15% for whites and 7% for nonwhites) were not statistically significant at the .05 level.

Geographic Distributions

As stated before, nearly one third of the Missouri mothers delivering babies in 1978 smoked during pregnancy. This proportion varied substantially by county of residence, ranging from a low of 17.1% in Mercer County to a high of 43.5% in St. Louis City.

As Fig. 2 shows, other areas with high rates of maternal smoking during pregnancy include most of Southeast Missouri, Buchanan County (St. Joseph area), Jasper County (Joplin area) and Marion and Ralls Counties (Hannibal area). Counties with low maternal smoking rates are scattered throughout rural areas of the state.

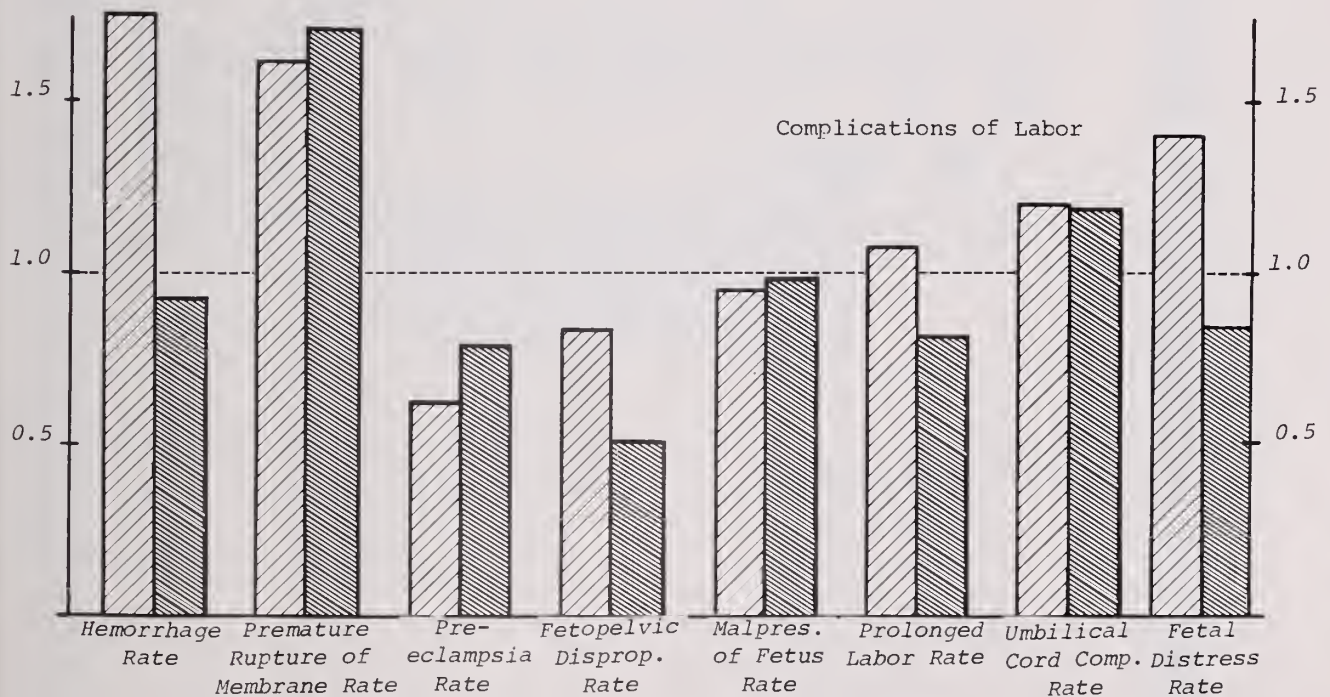
SUMMARY

Smoking during pregnancy results in an increased risk of (1) premature birth, (2) preterm delivery, (3) perinatal death including both fetal and neonatal death, (4) hemorrhage and premature membrane rupture, (5) umbilical cord complication and fetal distress and (6) low Apgar score at five minutes (Fig. 1).

No apparent risk difference between smokers and nonsmokers exists for the following pregnancy outcomes: (1) malpresentation of fetus and prolonged labor, (2) low Apgar score at one minute and (3) total congenital malformations.

Smoking reduces the risk of preeclampsia and fetopelvic disproportion.

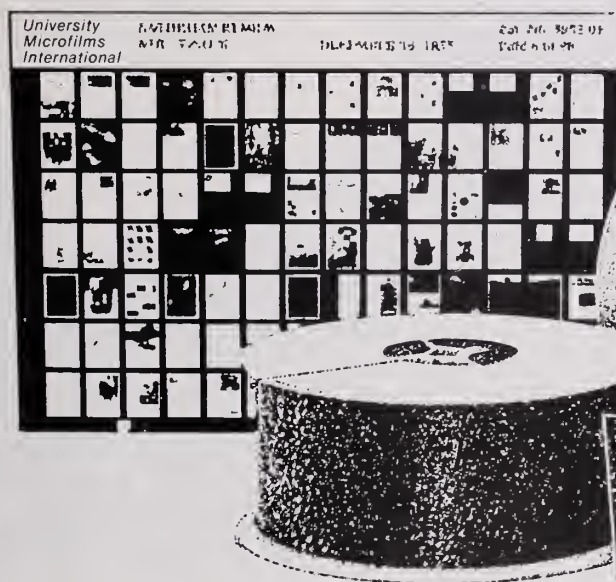
RATIOS OF SMOKER TO NONSMOKER STANDARDIZED*
RATES OF SELECTED BAD PREGNANCY OUTCOMES BY RACE



*All rates were adjusted for Mother's Education Level.
Premature and preterm Rates were also controlled for
prepregnancy weight.

Fig. 1

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Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

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Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

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2/80

President's Message

Our local, state and national governments do reflect the voting wishes of America. An absent vote often has a negative effect. The rights of Americans to a free press and secret ballot were fought for and won. They were not free gifts. If you were arbitrarily deprived of a free press, you would have cause to fight again. If you were arbitrarily deprived of your secret ballot, you could not help but be angry enough to start the fight early.

Honor the coming opportunity to cast your ballot. Only you can make your own decision. Only you can cast your ballot in secret. The patients and citizens of Missouri have benefitted from your personal care. Help them further by adding your considered ballot to elect concerned officials at home, in Missouri and in our national capital.



Richard V. Bradley, M.D.

For Your Convenience

Use this coupon for your TAX-DEDUCTIBLE CONTRIBUTION to the Missouri State Medical Foundation.

TO: MISSOURI STATE MEDICAL FOUNDATION

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NAME

ADDRESS

Make Checks Payable to Missouri State Medical Foundation.

The Missouri State Medical Foundation is classified by the Internal Revenue Service under Section 509(a)(3). Individuals may deduct up to 50% of their adjusted gross income for contributions made to the MSMF.

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WESTERN MISSOURI OFFICE: Robert E. McCurdy, Representative
 Suite 202-A, 6600 W. 95th Street, Overland Park, Kansas — P.O. Box 6101, Leawood, Kansas 66206
 Telephone: (Area Code 913) 381-4222



MSMA Auxiliary

Fall Conference

The main MSMA Auxiliary training event of the year takes place at our Fall Conference. The county presidents, county presidents-elect, state officers and other interested members meet for training, information and sharing ideas. The Fall Conference will be held on October 22-23 at the Airport Hilton Plaza Inn in Kansas City.

The Clay County Auxiliary hostess committee, under the leadership of Mrs. Theodore Edwards, has been making plans all summer. Two seminars will be led by past MSMAA presidents. Mrs. William M. Walker of Springfield will share information on the hospice movement and her experiences in helping set up the Hospice of Southwest Missouri, Inc. of which she is president. Mrs. William McPhee of Kansas City will introduce the seminar on marriage enrichment entitled "Two in a Canoe." This special one-hour presentation, which concerns the reinforcement of family bonds, will be made by the professional staff of The Living Center for Family Enrichment in Kansas City and a specially chosen couple who will share personal experiences from their own marriage.

Workshops will be led by our state officers on our key work areas as follows:

Legislation — Mrs. Vernon Jackson along with a legislation update by Mr. Royal O.

Cooper, MSMA Executive Secretary

Membership — Mrs. William Goodson, Jr.

Health Projects — Mrs. Eugene Henschel

AMA-ERF and MSMF — Mrs. Clyde V. Martin and Mrs. A. J. Campbell

An exhibit walk will display the projects and ideas of each county medical auxiliary.

All doctors and their spouses in the area will be interested in our banquet on October 22. The evening will start with a social hour at 6:30. The banquet will follow at 7:30. Mrs. Connie Moore from Florida, the Auxiliary AMPAC representative, will speak briefly on the importance of PAC membership this election year. The highlight of the evening will be musical entertainment by Dean Wilder, Professor of Voice at William Jewell College, Liberty. Mr. Wilder is a renowned singer, and we are looking forward to his performance. We hope many of you will join us.



Mrs. Donald A. Fakhoury
President

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

The Edward Mallinckrodt Institute of Radiology —
Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
Contact: Ronald G. Evens, M.D., Director

- Nov. 10 City-Wide Radiology Conference —
Detection of Abdominal Inflammatory
Diseases
- Dec. 15 City-Wide Radiology Conference —
Cardiovascular Computed Tomogra-
phy
- (1951)
- Jan. 19 City-Wide Radiology Conference —
Ultrasound in Obstetrics
- Feb. 9 City-Wide Radiology Conference
- Mar. 9 City-Wide Radiology Conference —
Interventional Radiology
- April 5-12 Third Annual Current Concepts in
Musculoskeletal Radiology and
Orthopedics Meeting
- May 11 City-Wide Radiology Conference —
Digital Imaging and Computers
Radiology
- June 13 Leroy Sante Lecture

Kilo Diabetes and Vascular Research Foundation
777 S. New Ballas Rd., Suite 308 E. St. Louis 63141
(314) 567-5522
Contact: Sharon Hoette, Program Coordinator

- Nov. 7 Eighth Annual Diabetes Symposium
(Breckenridge Inn Frontenac)

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

- Dec. 3 Chronic Renal Disease
(1951)
- Feb. 4 Infectious Diseases
- June 3 Lung Disease
- Aug. 5 Multisystem Trauma

Freeman Hospital
1102 W. 32nd, Joplin 64501
Contact: Joy W. Barnett, CME Coordinator

- Nov. 3 Perinatology
- Nov. 25 Hemalog-8 and Hemalog-D
(Carthage Country Club)
- Nov. 25 Diabetes Seminar

Greater Kansas City Radiological Society
KU Medical Center
Rainbow Blvd. at 39th, Kansas City, KS 66103
Contact: Norman L. Martin, M.D., President

- Nov. 7 Chest Radiology
(Dinner Meeting, Alameda Plaza)
4 PM — Lecture
(Kansas University Medical Center)
- (1951)
- Jan. 22 Neuroradiology
(Dinner Meeting, Alameda Plaza)
5 PM — Lecture
(St. Luke's Hospital)
- Feb. 11 GI Radiology
(Dinner Meeting, Alameda Plaza)
4 PM — Lecture
(Kansas University Medical Center)
- Mar. 11 Nuclear Medicine
(Dinner Meeting, Alameda Plaza)
4 PM — Lecture
(St. Luke's Hospital)
- April 8 Bone and Joint
(Dinner Meeting, Alameda Plaza)
4 PM — Lecture
(Kansas University Medical Center)
- May 20 Pediatric Urology
(With Greater K.C. Urological Society, Granada
Royale Hotel)

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
Contact: Office of CME

- Nov. 5 Trauma Management
(St. Louis Metropolitan Medical Society)
- Nov. 6-8 Clinical Allergy for the Practicing
Physician
- Nov. 14-16 Anesthesia and the Geriatric Patient
- Dec. 4-5 St. Luke's Clinical Conference
(St. Luke's Hospital)
- (1951)
- Jan. 4-9 Dx & Rx of Skeletal Disorders
(Keystone, Colo.)
- Feb. 26-27 Clinical Topics in Pulmonary Medi-
cine
- Mar 2-
May 18 Internal Medicine Review
(Monday Evenings — Jewish Hospital)
- Mar. 12-13 Gland Rounds (What's New in Endo-
crinology)
- Mar. 19-20 Rheumatology for the Practicing
Physician
- Mar. 27-28 Vascular Diseases
(Continued on next page)

- April 5-12** Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics (Caribbean Cruise)
- April 9-10** Eighth Annual Symposium on Obstetrics & Gynecology
- May 8-9** Alumni Reunion
- May 13** Burns: The Early Days
- May 21-22** Postgraduate Course in Otolaryngology
-

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000

- Every Wed. & Fri.** 3:00 PM — Basic Sciences to Surgery Seminar
4:00 PM — Surgical Rounds

Contact: Erich W. Pollak, M.D., Director of Surgical Education

- First & Third Saturdays** 9:00 AM — Surgical Techniques Seminar
9:45 AM — Morbidity and Mortality Conference
10:30 AM — Surgical Grand Rounds

- Every Tues.** 9:00 AM — Medicine Staff Conference (Except second Tuesday of each month)

Contact: David S. Sneid, M.D., Director of Medical Education

University of Missouri School of Medicine
Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
Contact: William D. Bradshaw, M.D.

- Oct. 25** Rheumatology Symposium for Practicing Physicians (Cape Girardeau)
- Oct. 29-31** The Concept of Person and Its Implications for the Use of the Fetus in Biomedicine
- Nov. 8-9** 21st Annual M.D. Day
- Nov. 12-13** The Physician and the Infection Control Committee
- Dec. 12-13** Third Annual Advances in Trauma Conference (1980) (Crown Center Hotel, Kansas City)
- Jan. 8-11** Diagnosis and Treatment of Headache (Scottsdale, Ariz.)
- Feb. 15-19** CAPD Conference (Crown Center Hotel, Kansas City)
- Mar. 3** Preceptors Day
- Mar. 4-5** 4th Annual Family Practice Update Session
- Mar. 19-20** Spring Surgery Conference
- Mar. 30-31** 27th Annual Urology Seminar (Crown Center Hotel, Kansas City)

- Apr. 8-9** Primary Pediatrics for the Primary Physician
- May 8-10** 4th Annual Missouri Cardiovascular Conference (Tan-Tar-A, Osage Beach)
-

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

- Oct. 30** CT of Degenerative Brain Disease and Cerebral Atrophy (Truman Medical Center)
- Oct. 30-Nov. 1** Annual Fall Clinical Conference — K.C. Southwest Clinical Society (Alameda Plaza Hotel)
- Dec. 4-6** The Heart 1980 (Alameda Plaza Hotel) (1981)
- Jan. 25-30** Traveling Medical Education Course — K.C. Southwest Clinical Society (Steamboat Springs, Colo.)
- Jan. 29** CT of Orbital Lesions (Truman Medical Center)
- Jan. 31-Feb. 7** Medical Seminar at Sea — K.C. Southwest Clinical Society (Caribbean Cruise Leaving Miami)
- Feb. 13-14** The Long Weekend: Oncology, Immunology and Infectious Diseases (Crown Center Hotel)
- Feb. 22-Mar. 1** Traveling Medical Education Course — K.C. Southwest Clinical Society (Nassau, The Bahamas)
- Feb. 26** Neurological Problems in Pediatrics Demonstrated by CT (Truman Medical Center)
- Mar. 26** Infratentorial Lesions — CT of the Post Fossa Masses (Truman Medical Center)
- Mar. 26-28** Perspectives in Medicine — 1981 (Hyatt Regency Hotel)
- April 24-25** The Long Weekend: Gastroenterology, Pulmonary Disease and Hematology (Hyatt Regency Hotel)
- April 30** C.V.A. — Anatomical Correlation by CAT (Truman Medical Center)
- May 8-9** Geriatrics Seminar (Alameda Plaza Hotel)
- May 14-15** Surgical Problems: The Old and the New (Hyatt Regency Hotel)
- May 28** CT Evaluation of Supratentorial Lesion (Truman Medical Center)
- June 5-6** Symposium on Physical Fitness (Crown Center Hotel)
- June 25** Differentiation of Brain Enhancement by CT (Truman Medical Center)



MSMA Members Receive Physician's Recognition Award

Sixty MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period of July, 1980.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in *MISSOURI MEDICINE* as they are received from the AMA.

A. Graham Asher, Lee's Summit
Alan H. Bailey, Springfield
Donald T. Behrens, St. Louis
Arnold S. Block, St. Louis
Chotchai Boonkham, Bridgeton
William D. Bradshaw, Columbia
Myron D. Brockman, Springfield
H. Michael Conoyer, St. Peters
Vijungco H. David, Creve Coeur
James W. Ebberts, Kansas City
Rodger J. Elble, St. Louis
Norman C. Estes, Kansas City
Fred A. Fayne, Kansas City
Felix D. Fortin, Kansas City
Thomas M. Foti, Kansas City
Rodrigue J. Francois, St. Louis
Thomas J. Fritzlen, Kansas City
Lawrence A. Gans, Brentwood
Roy J. Gillispie, Branson
James W. Ginther, St. Louis
John W. Hardy, Kansas City
William R. Harrin, Kansas City
David J. Harris, Kansas City
Dale M. Henselmeier, Bridgeton
Patrick C. Hogan, St. Louis
Terry S. Hoyt, Columbia
James K. Hunter, Fairfax
Jeffrey R. Johnson, Springfield
Dan F. Kopen, St. Louis
Jerold J. Kreisman, Creve Coeur
John J. Lang, St. Louis

Jay B. Lavine, St. Louis
Ervin Lipschitz, St. Louis
Daniel H. Lischwe, Bridgeton
Warren C. Lovinger, Nevada
Frederick D. Muegge, Springfield
Daniel J. Murphy, St. Louis
Richard W. Nysewander, St. Louis
Steven R. Osa, St. Louis
Donald S. Overend, Springfield
Roman L. Patrick, Creve Coeur
Nelson E. Powell, Kansas City
Arthur E. Rikli, Columbia
Lawrence E. Samuels, Chesterfield
William F. Sasser, St. Louis
John C. Seed, St. Louis
George J. Slahorek, Fort Leonard
Wood
Leslie A. Spry, Creve Coeur
Eric D. Stromberg, Kansas City
Brian W. Stufflebam, St. Charles
Raymundo D. Talaban, Fredericktown
Paul B. Thompson, Fort Leonard
Wood
Sharon K. F. Tiefenbrunn, St. Louis
Eugene Valins, Kansas City
Elizabeth R. Vianzon, Chesterfield
Richard F. Williams, Carthage
Norman L. Wool, Kansas City
James E. Young, Kansas City
Matthew C. Ziemianski, Kansas City
David K. Zucker, St. Louis

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

URGING MORE INVOLVEMENT by state governments in the Voluntary Effort to Contain Health Care Costs, AMA Board of Trustees Chairman Lowell H. Steen, M.D., told the nation's governors at the Annual Meeting of the National Governor's Association that the VE was instrumental in saving consumers about \$3 billion in 1978-1979. In a letter addressed to each governor before the meeting, the AMA called for further consideration of a proposed National Governors' Association policy statement that would encourage states to contract with exclusive providers under Medicaid. The AMA offered to work with the NGA on positive actions to help reduce Medicaid expenditures without restricting the patient's freedom of choice.

THE PRINCIPLES OF MEDICAL ETHICS were revised by the AMA House of Delegates at the Annual Meeting on July 20-24 in Chicago. The new code, consisting of a brief preamble and seven succinct sections, was prepared by an ad hoc committee after two years of study and consultation with medical societies and individuals. The committee described the principles as the "foundation upon which the opinions and reports of the Judicial Council will be based" and said the language of the principles "establishes broad areas of responsibility for all physicians and emphasizes the belief that ethical standards are developed for the benefit of the patient." The principles had not been revised since 1957.

FINANCIAL LEADERSHIP has kept the AMA strong during inflationary times, the AMA Board of Trustees reported to the House of Delegates at the Annual Meeting. The House reference committee noted that, as anticipated five years ago, expenses will begin to exceed revenue in 1981, and called for continued efforts by state, local, and specialty societies to increase membership. Acting on a report by the Council on Long Range Planning and Development, the House asked state and local societies to seek an increase of 15% if current AMA membership is

below 60% of the eligible physician population in their areas, and an increase of 10% if membership is above 60%. The reference committee urged specialty societies and service delegations to set similar goals.

THE AMA WILL ASK the federal government to make "an independent and impartial study to evaluate the efficacy and safety of chiropractic." The House of Delegates last month adopted a resolution calling for the study. Lowell H. Steen, M.D., chairman of the Board of Trustees, told a news conference that a study to determine "once and for all whether or not and under what medical circumstances chiropractic is effective and safe" would be "a great service to the American people." AMA EVP James H. Sammons, M.D., said, "The AMA, of course, cannot conduct such a study without bias. So let the federal government do it. If it turns out well for them, so be it. If it doesn't turn out well for them, so be it."

A "**REGISTER AND GET OUT** the Vote Campaign" for November 4 elections was launched by the AMA at the Annual Meeting. Titled "I'll Be There," the program calls on county medical societies to make local efforts to encourage medical families to register and vote. A letter describing the campaign will be sent soon to Federation leadership by the AMA President, and a resource kit will be mailed to metropolitan county societies.

RESEARCH ON THE USE of THC, the active ingredient in marijuana, to reduce nausea due to chemotherapy should be pursued in broader clinical trials with cancer patients, the AMA said in a letter to the FDA's Oncology Advisory Committee. The Association commended the efforts to bring "some hope of relief from the mentally and physically debilitating side effects of cancer chemotherapy" and offered assistance with expanded clinical trials. However, the letter urged continued stringent controls to avoid illicit use of the drug.



NEWS

From the Medical Schools

UNIVERSITY OF MISSOURI-KANSAS CITY

Dr. E. Grey Dimond, special consultant to the chancellor and former provost for the health sciences, was named honorary professor of the faculty at the Shanghai Second Medical College, Shanghai, China, on August 18. The professorship is the first of its kind awarded to an American by a Chinese medical school.

Dr. Dimond was in China as a guest of the Chinese Medical Association. While in Shanghai, he signed a formal sister-school agreement on behalf of UMKC and Truman Medical Center. The agreement promotes academic exchanges among the faculties of the Shanghai Second Medical College, the Shanghai Third People's Hospital, the Jui Chin Hospital, and the UMKC Schools of Medicine, Pharmacy and Dentistry.

In 1981, Dr. Harry S. Jonas, dean of the School of Medicine, will lead a group of professors of obstetrics and gynecology on a tour of the People's Republic. Later that year, UMKC will send a team of medical school students and faculty to Shanghai to collaborate with the sister institutions.

A research proposal of *Herbert A. Wenner*, M.D., Joyce C. Hall Distinguished Professor of Pediatrics, has received funding of \$7,400.

"A Study of the Epidemiology and Possible Means of Control of Two Diarrheal Diseases Occurring During Infancy and Childhood" will be supported by investment income on proceeds the University received from the sale of the Weldon Spring property. Funds for the project will be used to purchase a microtiter dilutor and the necessary reagents essential for the laboratory investigation.

Henry A. Mitchell, Ph.D. has been appointed assistant vice-chancellor for academic affairs effective July 1, 1980. Dr. Mitchell is a professor of biology, medicine and pharmacy and has been with the University since 1963.

Bob In-yu Yang, Ph.D., assistant professor of chemistry and medicine, has been awarded \$45,000 for support of his research project, "Rapid Determination of Mammalian Bioavailability of Vitamin B₆." The grant is funded by the

Science and Education Administration of the U.S. Department of Agriculture.

The School of Medicine is planning a study tour of the south central region of Missouri during October. The tour group will include faculty and students of the University's schools of medicine, dentistry and pharmacy.

The purpose of this study tour is to offer students an opportunity to learn about health care systems in the state; to acquaint them with health care institutions, facilities and personnel in the area; and to further their knowledge and understanding of the health care needs and opportunities in rural Missouri.

The tour departs on October 6 with stops scheduled in Appleton City, Hermann, Lebanon, St. James, Salem, Waynesville and several other towns. Interested persons should contact *Dr. Ed Twin* or *Lucinda Jenkins* at the School of Medicine for further information.

UNIVERSITY OF MISSOURI-COLUMBIA

Construction of a landing pad for helicopter-ambulances has begun at University Hospital and Clinics.

Helicopter transport is one of the Hospital's outreach programs serving all areas of the state, according to Jim Shedno, associate director for support services. Many of the transported patients will be critically ill newborn infants.

The \$25,000 helipad and 50-foot taxi strip was scheduled to be completed by September 30 and is expected to be used eight to ten times a month when the newly renovated neonatal intensive care unit is fully operational. University medical staff have received special training and equipment to accompany transported patients from anywhere in the state.

Shedno indicated that the Hospital planned to share the service with the Harry S. Truman Memorial Veterans Administration Hospital. The University is negotiating with the Missouri Highway Patrol and the Air National Guard to station helicopters at the site south of the Hospital 24 hours a day, seven days a week.

The fund raising campaign for the proposed

WHEN ANXIETY AND TENSION MAGNIFY PAIN

IN MUSCULOSKELETAL DISEASE*



A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC[®] ^{CV}

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-effective indications requires further investigation

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlorthalidone, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Drowsiness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions. Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and re-institution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdose with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication

Wyeth Laboratories
Philadelphia, Pa 19101



FOR MODERATE PAIN

A therapeutic dose
of acetaminophen
in one tablet

A therapeutic dose
of two complementary
analgesics

The convenience and
economy of a
dosage schedule of
one tablet, every four
hours as needed



WHY NOT WYGESIC[®] IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdose).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g., driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group. **PRECAUTIONS:** Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see Warnings). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSE: SYMPTOMS The manifestations of serious overdose with propoxyphene are similar to those of narcotic overdose and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdose with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analgesic drugs (e.g., caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdose (6-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237:2406-2407, 1977). Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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new Health Sciences Library has received a \$105,000 pledge from the J. B. Reynolds Foundation of Kansas City. Kick-off meetings with fund campaign volunteers have been held throughout the state.

The 1980 fall class entering the School of Medicine is a diverse group representing all areas of the state.

The 110 students have received a wide variety of undergraduate degrees with several holding advanced degrees in political science, engineering, biology and toxicology. The University of Missouri system has contributed 37 students to the class. Their undergraduate grade point average was 3.44 and their medical college aptitude test average was 8.98.

Fifty members of the class are from Springfield, Kansas City and St. Louis, the metropolitan areas of the state. Sixty are from smaller communities and rural areas. Women comprise about one fourth of the class this year.

Thirty-two students have at least one parent who is a health professional. Almost all of the students have had work experience in a hospital, other health care facility or a research laboratory.

There are 444 Missouri-resident applicants this year compared to 428 in 1979.

The 21st annual M.D. Day activities will begin on Friday, Nov. 7 with a scientific program on computers in medicine and will include a Saturday breakfast with faculty groups before the Iowa State Cyclones-Missouri Tigers football game.

Dr. Donald Lindberg, director of the information science group, will present an overview of the uses of computer in medicine. Other faculty members will discuss computer usage in clinical laboratories, radiology, rheumatology, electrocardiograms, coagulation studies and carotid artery imaging. Those attending will also have an opportunity to work with a computer terminal.

The M.D. Day reunion dinner will be held on Friday night in the Ramada Inn. Honored classes will be 1930, 1940, 1950, 1955, 1960, 1965, 1970 and 1975.

On November 8, faculty from the departments of family and community medicine, child health, cardiology, ophthalmology, psychiatry, surgery specialties, dermatology and hematology-medical oncology will be available for free-wheeling discussion at the breakfast at the Ramada Inn.

Registration forms and further information are available at the Health Sciences Continuing Education and Extension Conference Division (314-882-2256).

The Department of Psychiatry has been awarded two new training grants totalling \$386,100.

A five-year \$246,500 grant entitled "Comprehensive Psychiatric Education: Medical Students" will be directed by Dr. James A. Weiss, professor and chairman of psychiatry.

A three-year \$129,000 grant entitled "Mental Health Training for Non-Psychiatric Physicians," will be directed by Dr. Elizabeth M. Heimburger, associate professor of psychiatry.

ST. LOUIS UNIVERSITY

David R. Challoner, M.D., dean of the School of Medicine, has been elected to the Institute of Medicine of the National Academy of Sciences.

Dr. Challoner is one of 42 new members elected nationwide and the only individual from Missouri or Illinois.

Members are elected on the basis of professional achievement in science and medicine and their demonstrated interest, concern and involvement with problems and critical issues in health care, prevention of diseases, medical education and medical research.

Dr. Challoner has served as president of the American Federation for Clinical Research, the largest organization of physician-researchers in the United States. A 1961 Harvard Medical School graduate, he also has studied at Cambridge University in England, the National Heart Institute, the National Institutes of Health and the University of Washington.

Prior to his appointment as dean of St. Louis University School of Medicine, Dr. Challoner served as professor of medicine and biochemistry at Indiana University School of Medicine.

Robert Olson, M.D., Ph.D., chairman, Department of Biochemistry, has received three grants for his work with vitamin K, a factor which promotes clotting of the blood by increasing the synthesis of prothrombin, a protein secreted by the liver.

The grants, which total \$493,484 for a period of up to four years, are funded by the National Institutes of Health and the United States Department



Dr. Challoner

of Agriculture.

Dr. Olson and his co-workers will study the mechanisms by which vitamin K participates in the synthesis of prothrombin. Understanding this process will provide a clearer knowledge of the action of drugs used to block coagulation and thin the blood of patients with heart disease and clotting tendencies.

The National Institute of Mental Health has awarded a three-year, \$145,751 research grant to Rex Wang, Ph.D. assistant professor of pharmacology, to analyze effects of neurotransmitters and actions of drugs on dopamine neurons in the brain.

The dopamine neuron has been implicated to be hyperactive in schizophrenics. By understanding what factors and what neuronal systems influence the dopamine neuron activity and learning how to control this activity, there could prove to be a significant breakthrough, leading to the development of new antipsychotic agents.

Arnold Kaplan, Ph.D., associate professor of microbiology, has been acknowledged by the In-

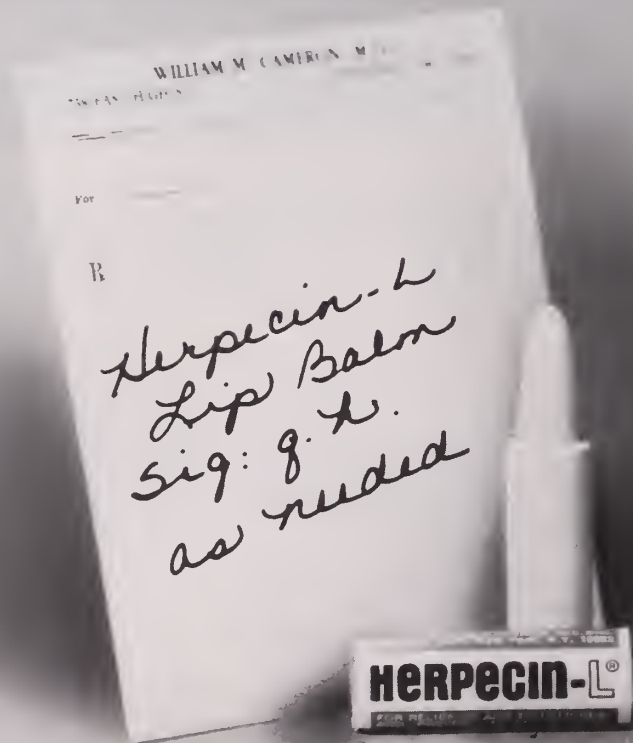
stitute for Scientific Information for his paper published in the "Proceedings of the National Academy of Sciences U.S.A."

The institute identifies heavily cited papers as indicators of focal points of research as well as important discoveries. Dr. Kaplan's paper was cited 98 times during 1977 and 1978, the institute reported.

Dr. Kaplan's research involves the study of lysosomal enzymes, key components in several genetic birth defects. He found that while lysosomal enzymes are produced and released in both the normal and defective cell, they are only able to re-enter the normal cell because of a previously formed recognition marker that functions as a key, allowing the enzyme to enter the cell. By using human fibroblasts and slime mold, Dr. Kaplan is able to study the effect of enzymes bearing these recognition markers on defective cells.

The American Heart Association, Missouri Affiliate, has awarded a \$14,819 grant to Max Jellinek, Ph.D., associate professor of surgery, for his research on preserving the chemical ATP during open heart surgery.

Dx: recurrent herpes labialis



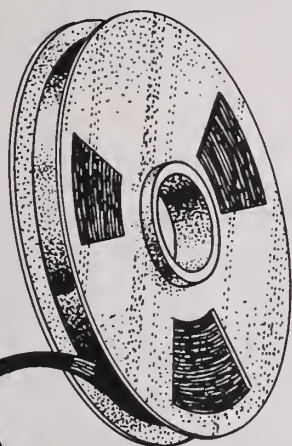
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New Members

Thomas Aceto, Jr., M.D., 1465 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Aceto is a native of Philadelphia, Pa., received his preliminary education at the University of Pennsylvania and his M.D. degree at Jefferson Medical College in 1954. He specializes in pediatrics.

Maria Candida Albano, M.D., 122 Mississippi Ave., Crystal City 63019, has become a member of Jefferson County Medical Society. Dr. Albano is a native of St. Louis, received her preliminary education at St. Louis University and her M.D. degree at Autonomous University of Guadalajara in 1977. She is in the general practice of medicine.

Alan G. Avondet, M.D., 937 Napoli Dr., Manchester 63011, has become a member of St. Louis Metropolitan Medical Society. Dr. Avondet is a native of Ogden, Utah, received his preliminary education at Brigham Young University and his M.D. degree at the University of Utah in 1979. He specializes in internal medicine.

Bruce Bade, M.D., Rt. 2, Box 99, Clark 65243, has become a member of Chariton-Macon-Monroe-Randolph County Medical Society. Dr. Bade is a native of Indianapolis, Ind., received his preliminary education at Indiana University and his M.D. degree at Indiana University in 1975. He specializes in internal medicine.

Carl Ned Baker, M.D., 631 State St., Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Baker is a native of St. Louis, received his preliminary education at the University of Evansville and his M.D. degree at Meharry Medical College in 1974. He specializes in family practice.

Issa F. Baroudi, M.D., 4466 W. Pine, St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Baroudi is a native of Syria, received his preliminary education at Damascus University and his M.D. degree at Damascus University in 1971. He specializes in general surgery.

William W. Beckett, Jr., M.D., 1504 E. Broadway, Columbia 65201, has become a member of Boone County Medical Society. Dr. Beckett is a native of Columbia, received his preliminary education at the University of Missouri-

Columbia and his M.D. degree at the University of Missouri-Columbia in 1972. He specializes in orthopedic surgery.

Robert B. Craig, Jr., M.D., Department of Pathology, The Jewish Hospital, 216 S. Kings-highway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Craig is a native of Allentown, Pa., received his preliminary education at Wittenberg University and his M.D. degree at St. Louis University in 1979. He specializes in pathology.

Dennis A. Dusek, M.D., 12615 Old Tesson Rd., St. Louis 63128, has become a member of St. Louis Metropolitan Medical Society. Dr. Dusek is a native of East St. Louis, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1975. He specializes in orthopedic surgery.

Joseph C. Dwyer, M.D., 1540 Woodlake Dr., Chesterfield 63017, has become a member of St. Louis Metropolitan Medical Society. Dr. Dwyer is a native of Albany, N.Y., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1970. He specializes in internal medicine.

Joseph P. Fiore, M.D., 508 E. 44th, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Fiore is a native of Elizabeth, N.J., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1976. He specializes in internal medicine.

David A. Fleming, M.D., 423 E. Logan, Moberly 65270, has become a member of Chariton-Macon-Monroe-Randolph County Medical Society. Dr. Fleming is a native of Moberly, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1976. He specializes in internal medicine.

Vince P. Gurucharri, M.D., 3205 Lansing Ave., Columbia 65201, has become a member of Boone County Medical Society. Dr. Gurucharri is a native of Rome, N.Y., received his preliminary education at the University of Notre Dame and his M.D. degree at the University of Chicago in 1971. He specializes in thoracic, general and peripheral vascular surgery.

Geoffrey O. Hartzler, M.D., 410 Medical Plaza, 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Hartzler is a native of Goshen, Ind., received his preliminary education at Goshen College and his M.D. degree at Indiana University in 1972. He specializes in internal medicine and cardiology.

Robert L. Hotchkiss, M.D., Kansas City Health Department, 414 E. 12th, Kansas City 64106, has become a member of Jackson County Medical Society. Dr. Hotchkiss is a native of Wichita, Kan., received his preliminary education at Washington University and his M.D. degree at the University of Arkansas in 1970. He specializes in family practice.

Thomas G. Johans, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Johans is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in anesthesiology.

Jung W. Kang, M.D., 10695 Bellefontaine Rd., St. Louis 63137, has become a member of St. Louis Metropolitan Medical Society. Dr. Kang is a native of Korea, received his preliminary education at Kyungpook University and his M.D. degree at Kyungpook University in 1955. He specializes in family practice.

Dennis R. Knudson, M.D., 401 Keene St., Columbia 65201, has become a member of Boone County Medical Society. Dr. Knudson is a native of Marion, N.D., received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Columbia in 1975. He specializes in otorhinolaryngology.

Dan F. Kopen, M.D., St. John's Mercy Medical Center, 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Kopen is a native of

Kingston, Pa., received his preliminary education at Wilkes College and his M.D. degree at Pennsylvania State University in 1974. He specializes in general surgery.

Rebecca Litchfield Lamb, M.D., 2307 Fairmont, Columbia 65201, has become a member of Boone County Medical Society. Dr. Lamb is a native of Colorado Springs, Colo., received her preliminary education at the University of Missouri-Columbia and her M.D. degree at the University of Missouri-Columbia in 1977. She specializes in obstetrics and gynecology.

John W. Linde, M.D., 1100 W. 10th, Rolla 65401, has become a member of Mid-Missouri County Medical Society. Dr. Linde is a native of Beaver Dam, Wis., received his preliminary education at the University of Wisconsin and his M.D. degree at St. Louis University in 1976. He specializes in ophthalmology.

Marvin J. Lopez, M.D., Ellis Fischel State Cancer Hospital, Columbia 65201, has become a member of Boone County Medical Society. Dr. Lopez is a native of Nicaragua, received his preliminary education at Calasanz College and his M.D. degree at the Universidad Autonoma de Guadalajara in 1972. He specializes in general surgery.

Carey M. Marder, M.D., 3535 S. Jefferson Ave., St. Louis 63118, has become a member of St. Louis Metropolitan Medical Society. Dr. Marder is a native of Pottsville, Pa., received his preliminary education at Muhlenberg College and his M.D. degree at Thomas Jefferson University in 1972. He specializes in internal medicine.

Robert A. Morantz, M.D., 400 Rockhill Medical Building, 6700 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Morantz is a native of New York, N.Y., received his preliminary education at Columbia University and his M.D. degree at New York University in 1967. He specializes in neurosurgery.

Richard S. Muther, M.D., 500 Rockhill Medical Building, 6700 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Muther is a native of Pittsburgh, Pa., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1975. He specializes in internal medicine.

In Memoriam

Oliver C. Pfeifer, M.D., 6567 Murdock, St. Louis 63109; a graduate of the University of Illinois, 1926; member of St. Louis Metropolitan Medical Society; age 79; died Aug. 30, 1980.

Robert L. Pierron, M.D., 805 Bitterfield, Ballwin 63011, has become a member of St. Louis Metropolitan Medical Society. Dr. Pierron is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Missouri-Kansas City in 1975. He specializes in orthopedic surgery.

Bhaskara M. Ponnuru, M.D., St. Mary's Health Center, 6420 Clayton Rd., St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Ponnuru is a native of India, received his preliminary education at Andhra Loyola College and his M.D. degree at Andhra University in 1970. He specializes in anesthesiology.

Niranjana Raju, M.D., Pointe Basse Plaza Mall, Ste. Genevieve 63670, has become a member of Perry-St. Genevieve County Medical Society. Dr. Raju is a native of India, received his preliminary education at the University of Mysore and his M.D. degree at the University of Mysore in 1974. He specializes in internal medicine.

Vincent T. Roman, M.D., 204 Ruby St., Sweet Springs 65351, has become a member of Pettis County Medical Society. Dr. Roman is a native of Kingston, Pa., received his preliminary education at the University of Scranton and his M.D. degree at Jefferson Medical College in 1977. He specializes in family practice.

Chinda V. Rojanasathit, M.D., #6 Muirfield Lane, Creve Coeur 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Rojanasathit is a native of Thailand, received his preliminary education at Chulalongkorn University and his M.D. degree at the Faculty of Medicine Siriraj Hospital in 1967. He specializes in obstetrics and gynecology.

Thomas E. Ryan, M.D., 11155 Dunn Rd., St. Louis 63136, has become a member of St. Louis Metropolitan Medical Society. Dr. Ryan is a native of St. Louis, received his preliminary education at Northwestern University and his M.D. degree at Northwestern University in 1974. He specializes in internal medicine.

Gregorio A. Sicard, M.D., 909 Wohl Clinic, 4960 Audubon, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Sicard is a native of Puerto Rico, received his preliminary education at St. Louis University

and his M.D. degree at the University of Puerto Rico in 1972. He specializes in general surgery.

Robert E. Tucker, M.D., 12166 Big Bend Blvd., Kirkwood 63122, has become a member of St. Louis Metropolitan Medical Society. Dr. Tucker is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri-Columbia in 1975. He specializes in orthopedic surgery.

Nelson P. H. White, M.D., 420 E. High, Jefferson City 65101, has become a member of Cole County Medical Society. Dr. White is a native of Sand Springs, Okla., received his preliminary education at the University of Oklahoma and his M.D. degree at the University of Oklahoma in 1963. He specializes in family practice.

William M. Zeller, M.D., 427 Cahill Rd., Branson 65616, has become a member of Tri-Lakes Medical Society. Dr. Zeller is a native of East St. Louis, Ill., received his preliminary education at Southern Illinois University and his M.D. degree at the University of Missouri-Columbia in 1973. He specializes in family practice.

New Student Members

University of Missouri-Columbia

Stephen Robert Davis
Michele Ann Huelskoetter

St. Louis University

Dennistoun K. Brown
Brian R. Nelson
Ann B. Oglesby
Benjamin S. Richards, III
James K. Ritterbusch, Jr.

Hey, diddle, diddle!
The cat and the fiddle.
The cow jumped up in the sky.

And, keep in mind, brother,
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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

Dr. Curtis H. Lohr, St. Louis, was made a fellow of the American College of Hospital Administrators at a meeting of that organization in Boston on September 14-16.

Dr. Evarts A. Graham, St. Louis, was one of a group of 20 who received honorary degrees from the University of Pennsylvania on September 20-21 when the school celebrated the bicentennial of its founding. He received the degree of Doctor of Science. The degree of Doctor of Law was conferred upon Pres. Franklin D. Roosevelt and Sir Lyman Duff, Chief Justice of Canada. Former Pres. Herbert Hoover received the degree of Doctor of Civil Law.

The first clinical pathology conference was held on September 19 at Ellis Fischel State Cancer Hospital in Columbia.

The Cape Girardeau County Medical Society met at the Colonial Tavern in Cape Girardeau on September 9. Members present were Drs. C. T. Herbert, M. H. Shelby, William Oehler, Garland A. Reynolds, Frank W. Hall, Glenn J. Tygett and C. A. W. Zimmerman of Cape Girardeau.

TWENTY-FIVE YEARS AGO

Robert J. Glaser, M.D. was appointed associate dean of the Washington University School of Medicine on July 1, 1955. The announcement was made by Dean Carl V. Moore. Dr. Glaser graduated with high honors from Harvard Medical School in 1943.

Dr. Frank B. Engley, Jr. assumed his duties as professor and chairman of the Department of Microbiology at the University of Missouri School of Medicine on August 15. He was associate professor of bacteriology at the University of Texas Medical Branch in Galveston.

W. A. Sodeman, M.D. and Dallas Meyer, Ph.D. of the University of Missouri School of Medicine report on the "Problem of Softened

Water in Low Salt Diets." "Water samples analyzed from a single source showed great variability in the sodium values from time to time, depending upon the care and maintenance of the units. In the softening process, sodium is donated to replace calcium and magnesium so that a low sodium diet would not be possible using softened water."

Dr. Arthur L. Haskins, Jr., who was an assistant professor of obstetrics and gynecology at Washington University School of Medicine has been appointed professor and chairman of the Department of Obstetrics at the University of Maryland School of Medicine in Baltimore.

TEN YEARS AGO

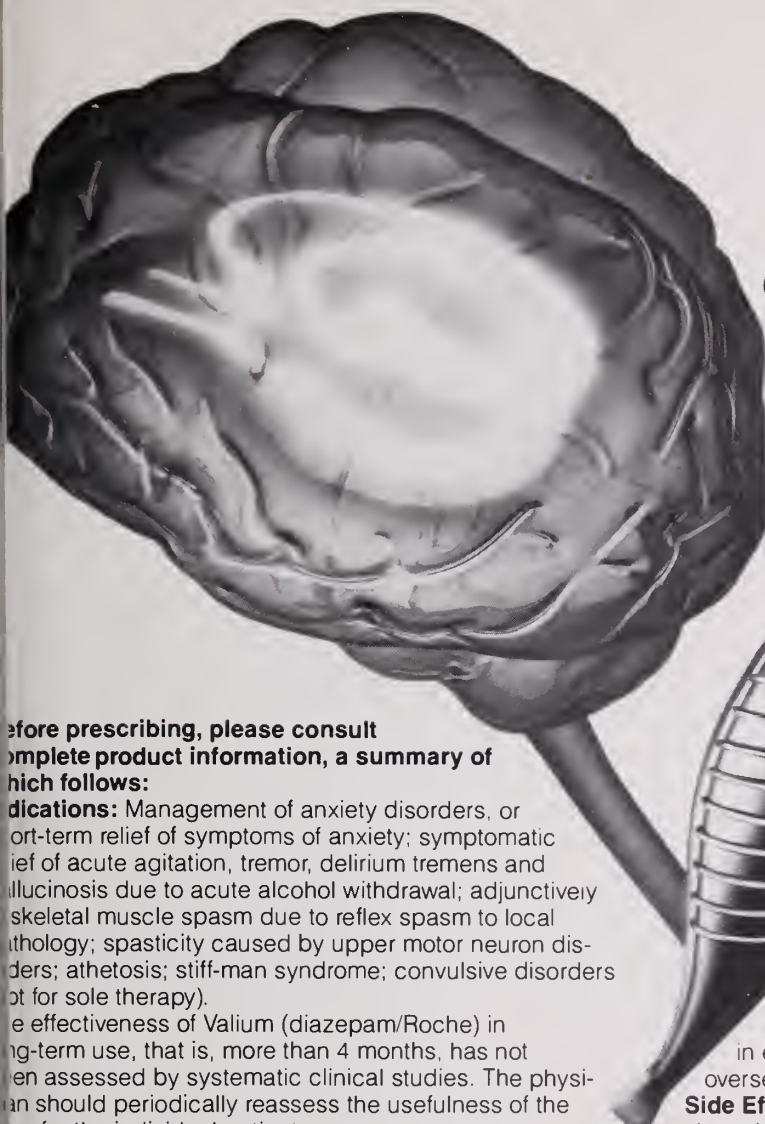
Dr. Simon Horenstein is now professor of neurology and chief of the Section of Neurology and Dr. Edwin E. Westura is director of the Section of Cardiology in the Department of Internal Medicine at St. Louis University School of Medicine.

Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology and professor of biomedical engineering at the University of Missouri School of Medicine has been selected as the "most distinguished alumnus" of the Radiology Department at the University of Iowa, where he was a medical graduate.

Dr. Edward J. Twin is the new executive director of the Kansas City General Hospital and Medical Center.

Two physicians have joined Dr. E. L. Sandidge in New Madrid. They are Dr. Pat Downey and Dr. David Jones, both of whom received their M.D. degrees at the University of Tennessee Medical Unit in Memphis in 1969.

Dr. Carl A. Moyer died on May 29, 1970 at the age of 61. He was buried in his native Baraga, Mich. He was Bixby Professor of Surgery at the Washington University School of Medicine from 1951 to 1965.



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an adjunct
in the relief
of skeletal
muscle spasm

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The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect.

Adults: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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of skeletal muscle spasm.

Please see summary
of product information
on preceding page.



Missouri Medicine

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November, 1980

Special Review Article

Management
of
Cancer Pain

Increase
in
Physicians
Affects
Practice
Management

Phosphate Therapy
in the
Management
of
Diabetic
Ketoacidosis

Carcinoma
of the
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Editor's Corner

On Being
On the Wrong Side



Contents • Page 653

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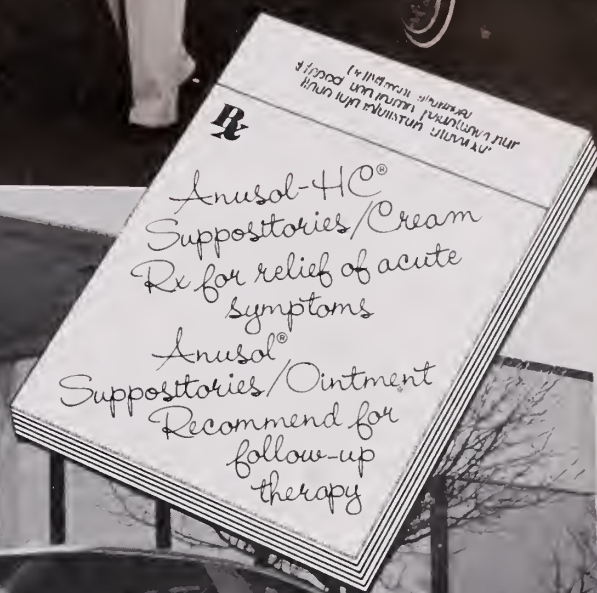
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Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Indications: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas and relief of local pain and discomfort following anorectal surgery.

Anusol-HC Cream is also indicated for pruritus ani.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol[®] Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: Symptomatic relief should not delay definitive diagnoses or treatment.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Anusol-HC is not for ophthalmic use.

Dosage and Administration: Anusol-HC Suppositories — Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at

bedtime for 3 to 6 days or until inflammation subsides. Then maintain patient comfort with regular Anusol Suppositories.

Anusol-HC Cream — Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain patient comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories — boxes of 12 (N 0047-0089-12) and boxes of 24 (N 0047-0089-24) in silver foil strips with Anusol-HC W/C printed in black.

Anusol-HC Cream — one-ounce tube (N 0047-0090-01) with plastic applicator.

Store between 59°-86° F (15°-30° C).

Full information is available on request.

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NEWS ROUND - UP

November, 1980

MOMEDICO offers shares to MSMA members

The MSMA-sponsored Missouri Medical Insurance Company "MOMEDICO" is currently offering MSMA members a chance to become owner-shareholders of Missouri's only stock professional liability insurance company. The offering of Class A Common Stock at \$3.75 per share is being handled by St. Louis investment bankers, Burns, Pauli & Company, Inc. or their chosen representatives. Although this is a relatively new company and the purchase of stock therefore necessarily involves some risk, the offering provides MSMA's physician members with the opportunity to get in on the ground floor of the MSMA sponsored insurance company.

The offering is believed to be fairly priced. Other insurance companies, including PICO (Physicians Insurance Company of Ohio) currently sell at a higher price in relation to equity (book value) per share.

PICO currently sells at 110% of book value in the open market, while MOMEDICO shares are being offered to MSMA members at 50% of equity value per share. A stock insurance company provides physicians with the opportunity to participate in the profits of the company providing their professional liability insurance, either by paying appropriate premiums or by paying dividends.

MOMEDICO was founded by MSMA in response to the dramatic and unnecessary increases in premiums on medical professional liability coverage which have taken place in recent years. Some companies, formerly offering this type of insurance, have even ceased to provide professional liability coverage.

One advantage of an insurance company offering professional liability coverage in one state is that the premiums should reflect the professional practice of physicians in that state as opposed to states where higher claims and resultant judgements have been the rule. Of course, the reverse can be also true in states with less satisfactory experience.

Initially MOMEDICO was capitalized with a bank loan — the interest on which was paid through the proceeds of MOMEDICO Notes sold to physicians as a requirement for insurance coverage. Most of these notes have been exchanged for common stock. The proceeds from the sale of stock for cash to MSMA members will be used to retire the bank loan and therefore provide a permanent capital base for MOMEDICO.

The offering can be made only by means of the prospectus which is available from Burns, Pauli (314-436-7575).

New toll-free number for E.D.S. Federal

The difficulty in contacting the E.D.S. Federal Communications Unit through the toll free number and the timely filing limit for claims submissions are two common concerns among the medical community.

However, the State Medicaid Agency recently approved the installation of three additional WATS lines to the Communications Unit. The four lines will operate on a rolling system to expedite the completion of calls. can calls.

The new toll free number is 1-800-392-0161. Currently all calls placed to 1-800-392-0522 are being routed through the new number. However, this will discontinue on Jan. 1, 1981. The E.D.S. Professional Relations staff is encouraging physicians to begin using the new toll free number now. This expansion is a result of feedback received from providers throughout the state.

Medicaid claims have been processed by E.D.S.

Federal since August 1, 1979. The one-year timely filing limit is now in effect. Claims may be resubmitted after the timely filing limit if the claim was originally denied on a Remittance Advice and if it is resubmitted within 18 months of the date of service.

To resubmit a claim, it is necessary to attach a photocopy of the Remittance Advice and circle the original claim denial. Each claim submitted after the timely filing limit must have this attachment to be reviewed by the E.D.S. Federal Exam/Entry Unit.

The management team at E.D.S. Federal has several new members. Dave Netzer assumed the responsibilities of Executive Program Director in mid-May. Netzer's experience in Medicaid includes the position of Medicaid Management Information System Coordinator during the Missouri implementation. The new Provider Relations Director, Marc VanDenbark, comes to Missouri with three years experience in provider relations.

FDA rules on patient package inserts

The FDA has made a final ruling on the development and distribution of future patient package inserts (PPI) for prescription drug products. Ten drugs and drug classes will be affected in the near future.

The general rule became effective on October 14, 1980. However, the regulations will not affect a particular drug or drug classes for 180 days pending notification in the Federal Register.

The ten drugs and drug classes for which PPIs will be required are ampicillins, benzodiazepines, cimetidine, clofibrate, digoxin, methoxsalen, propoxyphene, phenytoin, thiazides and warfarin.

Under the new rule, PPIs are to be provided by dispensers, including physicians, except in the following situations:

- the physician interdict — a physician prescribing a drug may direct (in writing on the prescription or orally to a pharmacy) that the dispenser withhold the PPI and it can be withheld unless the patient specifically requests it;
- the emergency treatment exemption — a PPI need not be given to patients who receive a drug in the course of emergency treatment (in or out of an institutional setting);

- the health care institution options — health care institutions are required to devise a system to make PPI information available to patients upon request;
- PPIs need only be provided for the initial dispensing of the drug, not for refills. The PPIs will be provided to dispensers by each manufacturer and the PPI text will be included in the package insert and (PDR).

The new PPI rule does not change the current requirements regarding prescription drugs for which PPIs must be dispensed under regulations which have been in effect for some time. Drugs covered include: isoproterenol inhalation drug products, oral contraceptive drug products, oral postcoital contraceptive drug products, medroxyprogesterone acetate injection drug products, intrauterine devices, estrogenic drug products and progestational drug products.

The existing regulations on estrogenic and progestational drug products, for example, require that the PPI be dispensed to all (but cancer therapy) patients each time the drug is dispensed. The requirement pertains to dispensing physicians, as well as to pharmacists, and to institutional and outpatients.

New PPI ruling draws questions

Q. Must I give a PPI to my patient each time I dispense a drug for which a PPI is printed?

A. That depends on the drug. If it is a drug for which a PPI is available but not yet required by FDA (i.e., propoxyphene), dispensing of the PPI is discretionary. Even when the new FDA rule is explicitly extended to each of the 10 drugs to be covered, physician dispensing of a PPI will still be discretionary unless the patient requests it.

Drugs such as estrogenic and progestational products for which PPIs are now required by FDA should be dispensed with the approved PPI.

Q. Who will provide the PPIs?

A. Drug manufacturers and distributors are required to provide dispensers with adequate supplies of PPIs. The PPI text will also be incorporated into the package insert (and PDR).

Q. Will foreign language PPIs be available?

A. FDA has urged drug manufacturers to create PPIs written in Spanish as well as English. However, providing the English version of a PPI is sufficient to comply with the current and new PPI rules.

Q. When the new rule becomes effective with respect to a particular drug, (a) What must I do in order to assure that the patient receives the PPI? (b) Can I direct that a pharmacist

not dispense the PPI to a particular patient?

A. (a) Nothing. The pharmacist must dispense the PPI unless directed otherwise by the prescriber. (b) A prescriber may direct over the phone or in his/her own handwriting on the prescription form that a PPI not be dispensed. The PPI will not be dispensed, unless the patient specifically requests it from the pharmacist.

Q. What about my hospitalized patients?

A. Health care institutions, including hospitals and nursing homes, will be required to inform patients of the availability of PPI information, but need only supply it on request.

Q. Are there penalties for not dispensing required PPIs?

A. Yes. Failure to dispense a PPI for which there is an established (non-discretionary) dispensing requirement could be treated by FDA as the dispensing of a "misbranded" drug. Penalties for distributing misbranded drugs are provided in the Federal Food, Drug, and Cosmetic Act.

Remember, however, that physician dispensing of PPIs under the new rule will be discretionary. Physicians are encouraged by FDA to use the PPI in the course of patient instruction, but are not required to use the PPI unless the patient requests it.

Dr. Haight is honored

J. Max Haight, M.D., Kansas City, is one of ten physicians from various states honored by the American Academy of Family Physicians and *Good Housekeeping* magazine for their dedication to serving their community by maintaining the highest standards of medical care.

Nominees for the award were chosen by the academy's state chapters and the final selection was made by the editors of *Good Housekeeping*.

Dr. Haight is a past president of the Missouri Academy of Family Physicians.

Correction — From the new immunization requirements listed in the September 1980 issue — one dose of live rubella vaccine received by injection at age 12 months or greater is required of all school-age males and of all school-age females in grades kindergarten through six.

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(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlorthalidate,

azepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or am-

phetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulant to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely may also have other allergic responses including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and re-institution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug. Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdose with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdose with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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hours as needed



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(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdosage).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients. Some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see Warnings). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSEAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977).

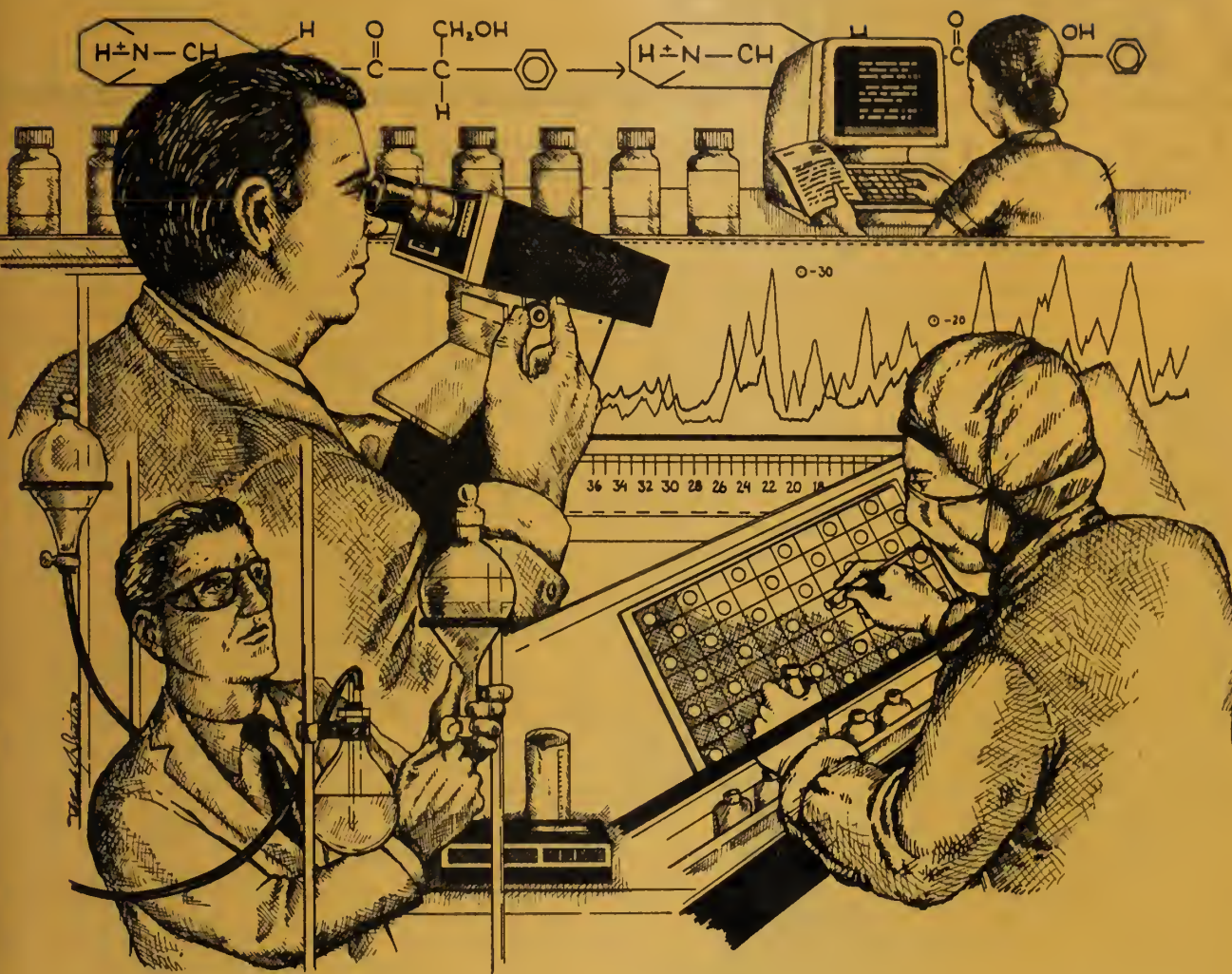
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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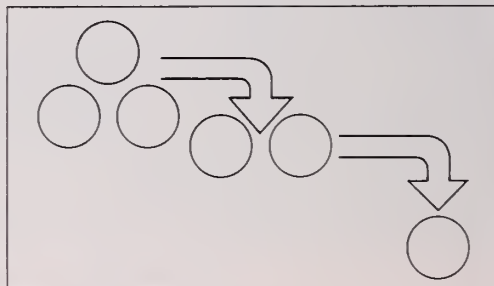
Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for

the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation

When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978



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symptoms of anxiety*

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*effective therapy through
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Before prescribing, please see summary of product information on next page



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, atetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

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"Even when it's time to
turn. . . ."

Editor's Corner

On Being On The Wrong Side

Ever since I have been old enough to feel the fangs of frustration, I have known what it means to belong to a minority race.

My problem is that I am left-handed. Your reply is, "So what?" Let me tell you that this is no small deal. Being left-handed means I am one of 11% of our population and that 11% gets no attention at all. The ghetto dwellers and migrant lettuce pickers all have people working for them. Rastus and his mule looked to a better day. Society recognized all that and attempted to do something about it. Society ignores me. Let's get down to business.

I am old enough that my first inkling of being different came when I began school.

"No, Wilfred," said my teacher, "use the other hand."

I deeply resented the knuckle-rapping that followed (in those days teachers still had a bit of clout). It stirred up in me a mounting obstinance. The teacher gave up and a couple of her successors likewise. I just couldn't write with my right hand. It was the left or none at all.

But licking the teachers was only the first skirmish of a long battle that still continues. I have lost most of the rounds. Next were the right-handed school chairs. There were no others. These caused me to write upside down so I could see what I was doing. From that we went to the scarcity of my kind of baseball gloves, then to the sneers at requests for left-handed golf clubs. And it didn't stop there. I still must wear an unhandy right-handed wrist watch.

However, the thing that really burns me is that the lovely spinning reel I would cherish is boldly noted in the catalog, "Available in right-handed model only." The vice-president of that company and I have had some correspondence about this and it resulted in an invitation to dinner in Vermont, but no spinning reel. His stance is one of dollars. Mine is that I, or the rest of my 11%, are numerous enough and should not be penalized because we were born with our brains bassackwards.

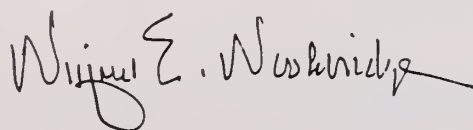
All this really digs deeper than spinning reels, golf clubs and wrist watches. Probably, being left-handed has been a maturing, as well as an aggravating and humiliating experience. It has certainly made it possible for me to appreciate the attitudes of some of my brothers who raise their hackles when someone says, "You are not going to get this and I am damn well going to see you don't get it!" That's not a good feeling — not a good feeling at all, but it's probably good for a fellow when all is said and done.

However, back to that spinning reel. . . .

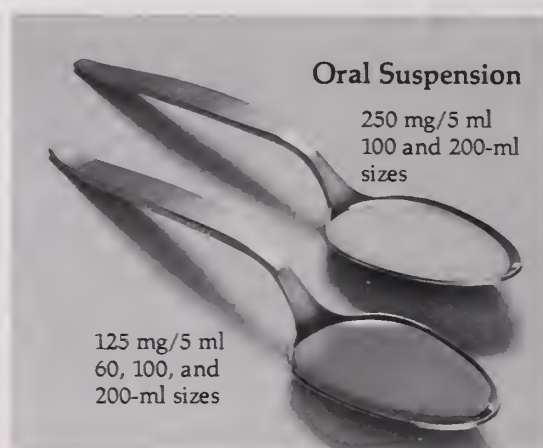
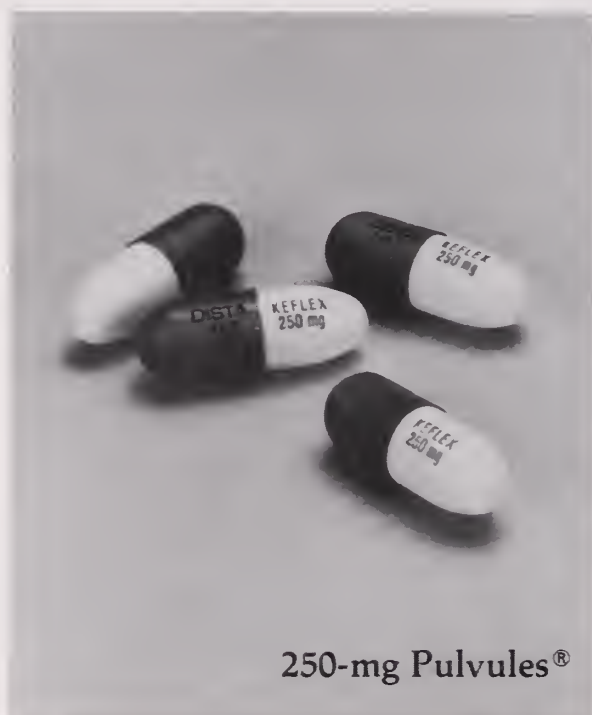
From:

"Conversations with Myself"

Wilfred E. Wooldridge, M.D.



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Special Review Article

JAMES O. ALYEA, M.D., *Columbia*

Management of Cancer Pain

An Overview

SIXTY PERCENT of terminal cancer patients have sufficient pain to interfere with efficient daily living. Excluding pain in the immediate postsurgical period, about 30% of those undergoing active treatment for cancer also require assistance for the control of pain.^{1, 2} Tumor is the prime cause of pain in 55% of the patients and metastases in 40%. In 5% pain is unrelated to the malignancy.³

The intent of the physician should be to give constant, rather than episodic, pain relief to the patient while allowing him to maintain a level of alertness which permits the enjoyment of such daily activities as are physically possible. My experience has been that complete relief is rarely achieved within these bounds. A compromise between tolerable pain levels and clear wits must be made.

Cancer pain may be controlled by eliminating the cause, by interrupting the pain pathway or by altering the patient's response to the pain.⁴ Attempts at removal of the cause can be made by surgery, radiation therapy or chemotherapy. Pain pathways may be interrupted by blocking specific nerves, for example, the intercostal or the mandibular nerve. Occasionally a patient will get prolonged or permanent relief from pain in the distribution of a single nerve if the appropriate nerve is blocked once or twice.⁵

Neurolytic blocks may be performed with abso-

lute alcohol or 6% phenol, either aqueous or in glycerine. Since these blocks are destructive to nerve tissue, they should be preceded by local anesthetic block to allow the patient the experience that would accompany a lytic block as well as the advantage of possible permanent relief mentioned above. Since the duration of a lytic block is unpredictable,⁶ it should be reserved for those who are not candidates for neurosurgical interruption. In any case, it is wise to avoid a neurolytic block in a patient expected to survive for more than a year. A painful chemical neuritis may occur after this period of time.

Wherever possible, it is better to block only the sensory nerve and preserve the motor functions. Most peripheral nerves are mixed, i.e. motor and sensory. An effective way to achieve sensory block with a minimum of motor involvement is to block individual nerve roots in the subarachnoid space with very small amounts of absolute alcohol or phenol. Pain relief from this procedure may be immediate and complete or it may be only partial immediately after the injection with effectiveness increasing over a period of approximately one week. The area of pain relief initially established may undergo shrinkage with the passage of time. If the resurgence of pain is sufficiently severe, the block may be repeated. Neurolytic block of the celiac plexus may be of value in the control of

This is a brief review of some of the more common approaches used for controlling pain and, thus, improving the quality of life for the cancer patients. Such an effort is extremely significant for total care of many cancer patients.

Dr. Alyea is Director, Department of Anesthesia, Ellis Fischel State Cancer Hospital and the Cancer Research Center. This investigation was supported in part by Grant No. CA 17946 from the National Cancer Institute, DHHS.

severe abdominal pain associated with involvement of the viscera.⁷

The neurosurgeon has an established place in pain relief. Among the common neurosurgical procedures useful for the control of cancer pain are rhizotomy, cordotomy, medullary tractotomy and psychosurgical procedures such as cingulotomy.⁸⁻¹¹

Cordotomy is an operation aimed at interrupting the pain tract in the spinal cord. It can be done by open operation and surgical section of the tract or by percutaneous interruption with electrocoagulation of the nerve tissue. Percutaneous cervical cordotomy is a useful procedure, particularly for debilitated patients, since it does not involve an open operation and can readily be done under local anesthesia. Morbidity and mortality rates are low. Percutaneous cervical cordotomy is best for unilateral pain. Bilateral percutaneous cervical cordotomy carries the risk of sleep apnea, sometimes called Ondine's curse. In sleep apnea, the patient breathes normally while awake but becomes apneic when he falls asleep. If pain is bilateral but is more severe on one side, cervical cordotomy may be done for the most painful side and subarachnoid alcohol block may be used for the lesser side. Some operators do cervical cordotomy at two levels in order to avoid sleep apnea. Cordotomy, whether open or percutaneous, is best limited to those with less than two years' life expectancy.

Although any procedure which interrupts the flow of pain impulses may give relief for a time, the pain nearly always recurs. The recurrence may take an unfamiliar form called dyesthesia, which may be more disturbing to the patient than the original pain. Therefore, it is initially important to make the best possible assessment of the patient's life expectancy in order to decrease the incidence of this complication.

Destruction of the pituitary gland, either surgically or by the injection of absolute alcohol, may be useful for widespread cancer pain that cannot be attacked on a segmental level.^{12, 13} The patients who respond to the above definitive procedures may need some analgesic medication since pain relief is often incomplete.

Medication is the mainstay of pain relief in cancer,³ and it is a rare patient who can be managed without some schedule of analgesic or psychotropic medication. Because of fear of addiction, some patients and many people in the medical care field feel an urgency to limit or withhold narcotics when these drugs are proper choices for pain management. Avoiding addiction is worthwhile if this can be achieved without misery for the patient. In general, addiction is not a problem and need not be feared in the advanced cancer patient.¹⁴ Pain resulting from advanced cancer often requires narcotics or opioids for comfort. The focus in management should be on the patient, not on the pain. Escalation of dosage can be minimized by using adjunctive drugs to treat the psychic aspects of pain. The goal of the physician should be to formulate a medication plan using the lowest effective dosage in the most convenient form (preferably oral) on a regular schedule with the greatest possible interval between doses. It is better to strive for an even level of comfort by dosing before the pain recurs than to permit recovery from analgesia before repeating the dose.

Non-narcotic analgesics, such as aspirin or acetaminophen, may be used in doses of 650 mg to 1,300 mg, but these require dosage at frequent intervals, usually every three to four hours. Nevertheless, they may be quite effective.¹⁵

Psychotropic drugs have some value and may be used for those with long projected life spans, sparing narcotics for a later time. A tricyclic antidepressant used with phenothiazine or butyrophenone has given good results although side effects may be a problem for a time and onset of relief is delayed for ten days to three weeks. One authority,¹⁶ with ten years' experience in this field, claims that 80% of his patients achieve acceptable relief of cancer pain utilizing this approach.

The dosage schedule he describes is simple and straightforward. He gives a tricyclic antidepressant, 25 mg three times daily, and haloperidol, 0.5 mg twice daily. The dose of haloperidol is then increased gradually to a maximum of 1.0 mg to allow the patient to become acclimated to the

tendency to dizziness and postural hypotension, which are common side effects of this regimen. Dr. Kocher has been using chlorimipramine, which is not available in this country. Desipramine, which has less anticholinergic effect and is less sedating than most tricyclics, may prove to be a good alternative choice. The most common side effects seen with the tricyclics are sedation, hallucinations and disoriented behavior; and with haloperidol, symptoms of Parkinsonism and postural hypotension. Cardiac arrhythmia may also be seen occasionally with the tricyclic antidepressants. This system of medication takes considerable time to become effective and, in some cases, incomplete relief is obtained so that it is necessary to provide additional analgesics. My personal experience with this type of management is limited, but I have seen favorable results.

Most narcotics are approximately one sixth as effective when given by mouth as when given parenterally. Those with the best oral effectiveness include codeine, methadone, Levodromoran, Percodan, and Dilaudid. Tables of equivalent doses are available.¹⁷⁻¹⁹

Of the above drugs, methadone may be used with a six- or eight-hour interval and Levodromoran with a four- or six-hour interval. The remainder require shorter dosage intervals. Body proteins bind methadone readily so onset of good analgesia may be delayed up to a week while body stores build. Increasing dosage rapidly for early effect may lead to severe somnolence and respiratory depression after two to four days.²⁰ The drug is valuable because it gives satisfactory pain control with a convenient dosage schedule, is effective orally and is comparatively inexpensive. Inclusion of phenothiazine or another tranquilizer in this schedule offsets nausea, which is a common side effect of all narcotics, and adds to analgesic effect. Valium may increase the depression which is a background condition of most patients with chronic pain.^{2, 21} Most patients will benefit from use of a tricyclic antidepressant given at bedtime. Cancer patients often brighten with rather small doses of a tricyclic (25 to 50 mg daily).

Brompton's cocktail recently has become more popular in the United States. There are several versions of it which adhere to the same general principle of narcotic analgesia with adjunctive drugs. I find that adjuncts are not invariably necessary and favor an individualized approach to the patient. Once the requirements are established, the drugs can be conveniently combined into a single vehicle if desired.

TABLE 1

Drug	Methadone
ORAL Methadone Equivalent of ORAL Analgesics	
Codeine	0.05
Hydromorphone (Dilaudid)	1.3
Meperidine	0.03
Morphine	0.16
Oxycodone (Percodan)	0.3
Levorphanol (Levodromoran)	2.5
Pentazocine (Talwin)	0.05 ϕ
ORAL Methadone Equivalent of PARENTERAL Analgesics	
Codeine	0.08
Hydromorphone (Dilaudid)	6.6
Meperidine	0.13
Morphine	1.0*
Methadone	1.25
Oxycodone (Percodan)	0.66
Levorphanol (Levodromoran)	5.0
Pentazocine (Talwin)	0.16 $\dagger$

The methadone column gives the number of mg of methadone roughly equivalent to 1.0 mg of other analgesic.

* Some drug equivalence tables give 2.0 mg as the equivalent of 1.0 mg 1M morphine. I find 1.0 mg equivalent gives a good result after the few days required for methadone to accumulate.

$\dagger$ Pentazocine has narcotic antagonist properties. This must be taken into account.

Table 1 shows equivalent doses of methadone. Methadone dosage can be simply and effectively established by using these tables as a guide.

Patients often receive two or three different narcotics for pain relief. To determine a starting dose for methadone, the total 24-hour dose, in milligrams, of each drug is determined and the dose of each is converted into milligrams of methadone by use of the tables. The result is totaled and then divided into four equal doses to be given every six hours regularly.

Since methadone accumulates over several days before a stable level is achieved, initial pain relief may be inadequate. Therefore, I give a short-acting narcotic in adequate dosage between the doses of methadone. This is given as often as requested, but not closer than one hour to any methadone dose. The number of interim doses of narcotics shows a decrease by the third day and usually drops to zero at five or six days. Some patients, such as those with vertebral metastasis and fracture (where motion aggravates the pain), may continue to request supplementary medication during severe episodes. If the times are predictable, one of the methadone doses may be increased to obtain pain relief. It may prove more convenient to continue use of occasional shorter-acting agents. Peripherally-acting analgesics, such as aspirin or Tylenol in doses up to one gram, may be useful as supplementary analgesics.

TABLE 2

Drug	Dose (Oral)	Cost/30 Days
Methadone	5 mg q6h*	\$ 2.50
Levorphanol	2 mg q4h	\$50.00
Dilaudid	4 mg q3h	\$39.00
Percodan	3 tab q4h	\$39.00
Morphine	20 mg q4h	\$38.00

* Tablets, not diskets.

If the initial dose of any narcotic seems inadequate, one should not become discouraged and add others of the same relative potency to add to the effect. It is better to increase the dose of a single agent until relief is obtained or unfavorable side effects are noticed. A more potent drug is valuable in reducing the number of pills required. Some pains are so severe that they defy control with narcotic doses which allow the patient to remain oriented and responsive.

Cost comparison is interesting. Calculating the druggist's cost for a one month supply of common narcotic analgesic in equivalent doses produces the approximations found in Table 2.

Some pharmacists believe a special license is required to dispense methadone. This was true for a time because of the drug's use in drug abuse programs, but the restriction has been lifted.²²

Dosage schedules should be reviewed every four to six weeks and more often in the early stages. Patients who take medication to supplement the effects of a nerve block or a neurosurgical procedure may require smaller doses as time passes. The same is true of patients who are receiving radiation therapy or chemotherapy and who require analgesics while waiting for the maximum effect of their treatment. If a patient receiving medication is pain-free, it is a good idea to gradually decrease the dosage of analgesic over a period of time. It may be possible for patients who have had treatment aimed at destruction of the tumor to stop narcotics altogether. Withdrawal symptoms and continued demand for narcotics are not common occurrences in cancer patients, particularly if the narcotic has been withdrawn gradually.

Real concern for the patient's pain problem is one of the most potent remedies available to us. Such concern can be communicated in conversation or often by body language. Patients are most sensitive to these clues so that the honest-to-God variety is far more effective than a facsimile. Man-

agement of chronic pain is time-consuming; the amount of time invested in a single patient can be substantial. This places a burden on the busy practitioner, particularly in the early phase. Nevertheless, the results are rewarding when patients respond well.

Selection of the approach to the pain problem should be made after thorough and frank discussion with the patient and his family about the avenues considered most likely to be helpful. The hazards, benefits and alternatives should be discussed in clear terms.

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Phosphate Therapy in the Management Of Diabetic Ketoacidosis

DIABETIC KETOACIDOSIS continues to be a medical emergency. Major advances made in the management of this condition include the use of low dose insulin, improved fluid and electrolyte administration, and a more judicious use of bicarbonate.^{1, 2} One area which remains controversial is the use of phosphate salts in this illness.

PATHOGENESIS OF PHOSPHATE DEPLETION IN DIABETIC KETOACIDOSIS

Phosphate depletion in diabetic ketoacidosis arises from many sources (Table 1). Most patients have anorexia and a good percentage will have vomiting or diarrhea or both. Thus, there will be decreased phosphorous intake and increased intestinal loss of phosphorous. Also, glycosuria, ketonuria and polyuria are associated with excessive renal loss of phosphorous. As early as the 1920s studies clearly showed that metabolic acidosis may cause phosphaturia.³ Acidosis decomposes intracellular organic compounds causing inorganic phosphate to move outside of cells and be excreted in the urine. Hypomagnesemia, another common abnormality in diabetic ketoacidosis, may produce excessive renal phosphate wasting. Although all of these mechanisms are not operative simultaneously, there is a significant loss of total body phosphorous with estimates

Although advances have been made in the management of diabetic ketoacidosis, it is still considered to be a medical emergency. The authors discuss the "pros and cons" of the use of phosphate salts in the treatment of this condition and offer guidelines for phosphorous administration.

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ranging from 1mM per kg of body weight to 400 mM. The latter results are found in reverse balance studies done over several weeks in patients recovering from diabetic ketoacidosis.⁴ Even with a total body depletion of phosphorous, only a small proportion of patients will have hypophosphatemia at the time of diagnosis.⁵ As shown by Seldin and Tarail, however, urinary excretion of phosphorous and serum phosphate levels will decrease dramatically in the first few hours of insulin therapy.⁶ A plasma phosphate concentration below 1.0 mg/dl, which may occur commonly in diabetic ketoacidosis, has potentially serious consequences on body metabolism and organ function.

CLINICAL DERANGEMENTS IN PRONOUNCED PHOSPHOROUS DEPLETION

Clinical abnormalities in pronounced phosphorous depletion may involve (1) tissue oxygenation, (2) neutrophil function, (3) central nervous system function and (4) glucose utilization.

1. Tissue Oxygenation

Tissue oxygenation depends on several variables including the hemoglobin level, cardiac output and oxygen unloading at the cellular level. Pronounced phosphate depletion in diabetic

TABLE 1
MECHANISMS OF PHOSPHOROUS LOSS IN
DIABETIC KETOACIDOSIS

Increased Intestinal Loss

Vomiting
Diarrhea

Increased Renal Loss

Acidosis
Glycosuria
Renal tubular defects
Hypomagnesemia
Hypokalemia
Metabolic alkalosis

Intracellular Shift

Treated diabetic ketoacidosis
Respiratory alkalosis

ketoacidosis may affect adversely the latter two variables. In the study of O'Connor and associates, markedly phosphate-depleted patients had impaired left ventricular stroke work and an elevated pulmonary capillary wedge pressure which were significantly improved with phosphate repletion.⁷ Since many patients with diabetes already have a compromised myocardium, administration of phosphorous in diabetic ketoacidosis would seem warranted.

Much of the recent work on hypophosphatemia in this condition has involved the effect of 2,3-diphosphoglycerate (2,3-DPG) and arterial pH on the oxyhemoglobin dissociation curve (Fig. 1). The concentrations of 2,3-DPG are decreased in diabetic ketoacidosis by several mechanisms including inhibition of the synthesis of 2,3-DPG by the acidotic state and total body phosphate depletion. The depletion of red cell 2,3-DPG will shift the oxyhemoglobin dissociation curve and the P_{50} (the arterial oxygen concentration at which 50% of the hemoglobin is saturated) to the left producing tissue hypoxemia. Although the depletion of 2,3-DPG shifts the oxyhemoglobin dissociation curve to the left, most untreated patients with diabetic ketoacidosis will have a dissociation curve that approximates normal. The leftward shift of the

curve by the decreased 2,3-DPG is compensated by the acidosis which moves the curve to the right. The major problem with the oxyhemoglobin dissociation curve occurs during the early treatment of diabetic ketoacidosis.

The acidotic state is usually corrected within 12 to 24 hours while the return of 2,3-DPG to adequate levels lags behind for several days and possibly as long as a week in patients not treated with phosphate salts. Thus, the protective effect of the acidosis on the oxyhemoglobin dissociation curve is rapidly lost while the adverse effect of the 2,3-DPG remains. Early use of phosphate salts has been shown to replete the 2,3-DPG levels rapidly and to restore the P_{50} toward normal. Early use of phosphorous, thus, may help alleviate or prevent tissue hypoxemia.

2. Neutrophil Function

Neutrophil function, as measured by chemotaxis, phagocytosis and the killing of ingested bacteria, is impaired in uncontrolled diabetes mellitus. Recent work by Craddock and associates in severe phosphorous depleted dogs showed that neutrophil function was depressed during the hypophosphatemic state while correction of the neutrophil abnormalities occurred with phosphorous repletion.⁸ As infection is a common precipitating event or complication in patients with diabetic ketoacidosis, replacement of phosphorous appears useful in the restoration of neutrophil function.

3. Central Nervous System Function.

Patients in diabetic ketoacidosis commonly have central nervous system symptoms, especially a depressed sensorium. Many factors may interact in producing this altered mentation, including hyperosmolality, hyperviscosity of the blood and intracellular acidemia in the brain.⁹⁻¹¹ What role, if any, phosphate depletion may have in the pathogenesis of this dysfunction is unclear. Patients with pronounced phosphate depletion caused by hyperalimentation commonly have mental obtundation or seizures which may be corrected with phosphate replacement.¹² In addition, supplementing the alimentation fluid with phosphorous may prevent these abnormalities.¹³ Extrapolating from the markedly phosphate depleted patient secondary to hyperalimentation, it would seem appropriate to replace phosphorous as early as possible in order to improve central nervous system function.

4. Glucose Utilization

Studies in patients with diabetes mellitus and those who are phosphorous depleted from hyper-

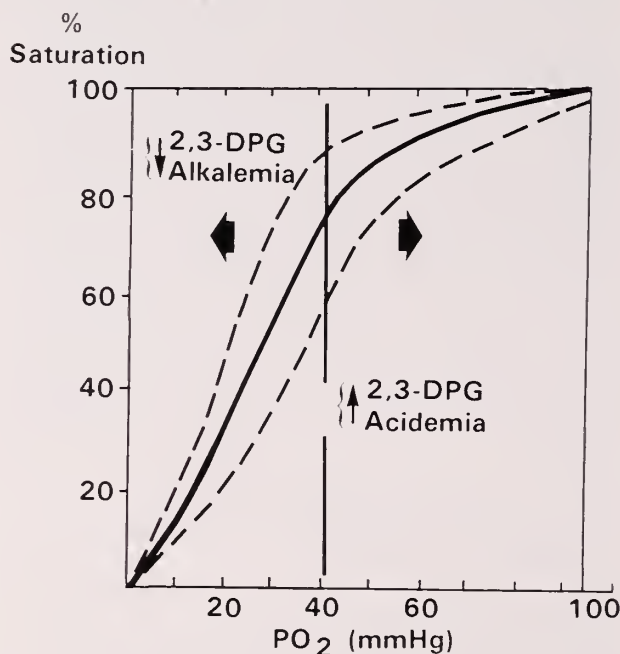


Fig. 1 Oxyhemoglobin dissociation curve and factors that affect it. Decreased 2,3-DPG concentrations, alkalemia and a decreased temperature will shift the curve to left, resulting in increased affinity of hemoglobin for oxygen with possible tissue hypoxia. Increased 2,3-DPG, acidemia and an increased temperature will produce an opposite effect.

alimentation suggest that glucose utilization is improved following phosphorous administration.^{14, 15} In addition, more recent animal studies indicate that phosphorous deficiency may produce an insulin resistant state.¹⁶

GUIDELINE FOR PHOSPHOROUS REPLETION

Therapeutic guidelines for phosphorous administration in the treatment of severe hypophosphatemia are few and mainly empiric. Although oral phosphate preparations are available, parenteral administration is recommended for the pronounced phosphate depletion state. The recommendations by Lentz and associates seem valid.¹⁷ As a rough guideline, they suggest an initial dose of 0.08 mmol/kg body weight (2.5 mg/kg body weight) if hypophosphatemia is recent and uncomplicated and 0.16 mmol/kg body weight (5 mg/kg body weight) if it is prolonged and has multiple causes. Initial doses should be 25% to 50% higher if the patient is symptomatic and lower if the patient is hypercalcemic. Each dose should be given intravenously over a period of six hours. The authors properly state that these guidelines are empiric and that the effect of therapy must be closely monitored. Several phosphorous preparations are available and are listed in the review by Lentz and co-workers.¹⁷ Phosphorous administration is not without hazard (Table 2). Hyponatremia and its attendant complications or hyperkalemia may occur, depending

SUMMARY

Hypophosphatemia has been associated with a variety of clinical and laboratory abnormalities. In diabetic ketoacidosis, severe phosphorous depletion may be associated with altered tissue oxygenation, abnormal neutrophil function, depressed central nervous system function and impaired glucose utilization. Replacement of phosphorous has been shown to alleviate these abnormalities. While the clinical benefits of phosphorous administration in regard to morbidity and mortality are still largely unknown, there is reason to expect improvement from the use of this agent. Studies are conflicting as to the clinical value of phosphorous replacement.^{15, 19} Only with further large scale studies will it be known whether early phosphorous administration in diabetic ketoacidosis is "fact or fancy."

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TABLE 2
POTENTIAL RISKS OF PHOSPHATE THERAPY

Hyperkalemia
Sodium overload
Metastatic calcification
Hypocalcemia/hypomagnesemia
Renal failure
Hypotension

on which phosphate salt is given. Both symptomatic hypocalcemia and hypomagnesemia have been well documented during phosphate therapy; thus, clinical symptoms and biochemical values should be closely watched.¹⁸ Metastatic calcification may occur and deterioration of renal function is relatively common. In addition, rapid administration of phosphorous may cause severe hypotension. Contraindications to phosphorous administration include hyperphosphatemia and renal insufficiency. Oral phosphorous solutions may produce diarrhea.

Carcinoma of the Bartholin Gland

Case Reports

BECAUSE PRIMARY CARCINOMA of the Bartholin gland comprises only 27% of all vulvar cancers, its diagnosis is frequently delayed.¹

Although Klob first reported its occurrence in 1864,² there is little information in the literature regarding symptoms and treatment. The purpose of this paper is to report our experience, which emphasizes clinical and pathological aspects and electron microscopy.

DIAGNOSTIC CRITERIA

In 1897, Homan¹ established the following criteria for diagnosis of primary carcinoma of the Bartholin gland: (1) correct anatomic position of the tumor, (2) location of the tumor deep in the labium, (3) overlying skin intact and (4) presence of some elements of glandular epithelium.

Chamlian and Taylor³ proposed these criteria: (1) areas of apparent transition from normal elements to neoplastic areas, (2) the tumor involved the area of the Bartholin gland and (3) no evidence of a primary tumor elsewhere with the same histology. In this series, all patients satisfied these criteria.

CASE REPORTS

Case #1 A 47-year-old Oriental woman, gravida 0, had a tumor in the right inguinal area. Three months prior to referral, she noticed edema of the right vulvar region and a subsequent nodule in the right groin. The biopsy specimen showed metastatic squamous cell carcinoma. Pelvic examination revealed the presence of a 2 x 2 x 0.5 cm subcutaneous tumor located in the area of the right Bartholin gland with intact overlying skin. A radical vulvectomy and bilateral inguinal lymphadenectomy were performed. Histologic examination showed a well to moderately differentiated squamous cell carcinoma of the right Bartholin gland with free margins. An inguinal lymph node on the right revealed metastatic carcinoma (Fig. 1). One and one-half years later, the patient had a hard nodule near the pubic ramus. Results of excisional biopsy revealed recurrent carcinoma. Six thousand rads were given to the pelvis and vulvar areas. Five years of follow-up have been completed with no evidence of disease.

Case #2 A 35-year-old white woman noted an enlargement in the area of the right Bartholin gland for four months. Results of excisional biopsy of a 3 x 2 x 1.5 cm nodule proved the presence of a well differentiated adenocarcinoma (Fig. 2). She was referred to us and radical vulvectomy, bilateral inguinal and pelvic lymphadenectomy were done. Histologic examination revealed tumor-free margins and no lymph node in-

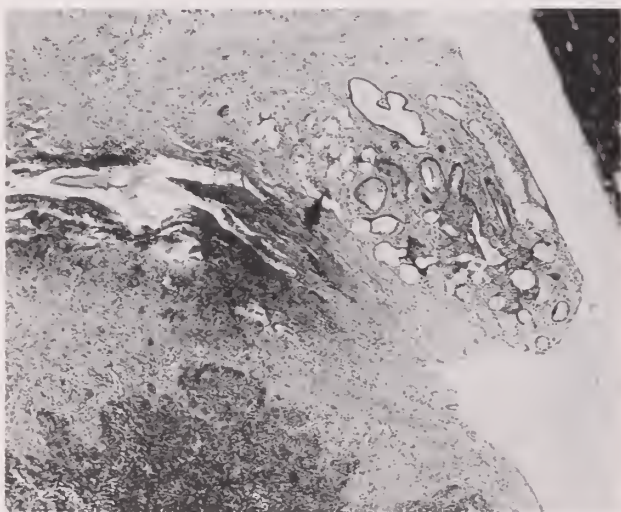


Fig. 1 Case #1. Squamous cell carcinoma in lower left field. Bartholin gland with squamous metaplasia in upper right field (H & E $\times$ 40).

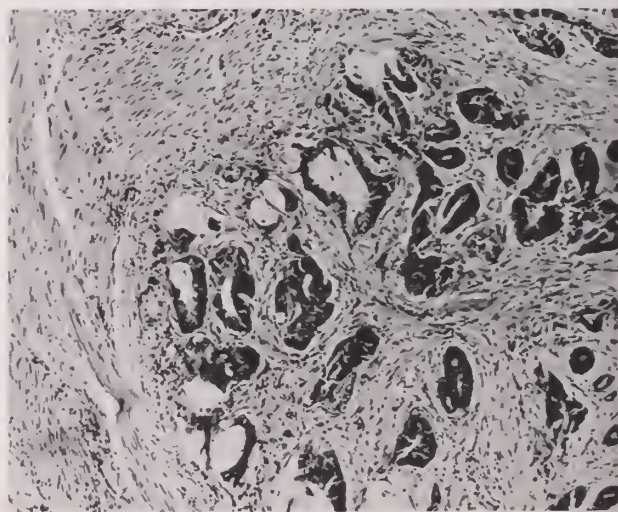


Fig. 2 Case #2. Well differentiated mucin producing adenocarcinoma of Bartholin gland (H & E $\times$ 100).

volvement. Two years later, she had a recurrence in the recto-vaginal septum which required a posterior exenteration. She was explored both seven and eight years after the original diagnosis with no evidence of tumor. Eleven years after diagnosis, the patient remains free of disease.

Case #3 A 63-year-old white woman, gravida 3, para 2, abortus 1, had a tumor in the right side of her vulva. This was present for one month prior to excisional biopsy. The skin overlying the 1 cm x 2.5 cm tumor was normal. This nodule was located deep in the right labium in the region of the Bartholin gland. The excised tissue revealed a moderately well differentiated squamous cell carcinoma. Radical vulvectomy, partial vaginectomy, inguinal lymphadenectomy and pelvic lymphadenectomy were performed. Postoperatively, she had bilateral inguinal lymphocysts requiring drainage. Histological examination of the surgical specimen revealed no further tumor in the specimen, nor in the inguinal or pelvic nodes. She was discharged 21 days after surgery. A month after discharge, she died at home of a massive pulmonary embolus.

Case #4 A 64-year-old black woman, gravida 5, para 5, had adenocarcinoma of the breast that was treated with surgery followed by two years of combination chemotherapy. On routine examination, she was found to have a 3 x 4 cm mass in the right Bartholin gland which extended deeply toward the levator ani, vagina and pubis.

There was no evident metastasis. The biopsy specimen revealed the presence of a well differentiated squamous cell carcinoma of the Bartholin gland (Fig. 3). Radical vulvectomy, bilateral femoral and pelvic lymphadenectomy and partial vaginectomy were done and dissection carried to the levator ani and pubic ramus on the side of the tumor. Histologic examination revealed negative pelvic nodes, and positive right inguinal node, with free margins. Sixteen months post-

The authors report six cases of Bartholin gland carcinoma and discuss the results of electron microscopic examination of specimens from one patient. At the time of diagnosis, malignancy was not suspected in four patients. Their experience was that squamous carcinoma of the Bartholin gland cannot be differentiated from squamous carcinoma of the vulva histologically or by electron microscopy. Dr. Xynos and Dr. Hahn are from the Department of Obstetrics and Gynecology and Dr. Benjamin and Dr. Tsai are from the Department of Pathology, St. Louis University School of Medicine.

operatively, she had a local recurrence but has refused further therapy.

Case #5 A 43-year-old black woman, gravida 6, para 6, had an excision of an enlarged right Bartholin gland prior to referral to our hospital. The mass, which had been causing pain for two months, proved to be a squamous cell carcinoma of the Bartholin gland. Radical vulvectomy and bilateral inguinal lymphadenectomy were done. Histologic examination revealed residual poorly differentiated squamous carcinoma with free margins and negative nodes. She has been observed for five years and continues to show no evidence of disease.

Case #6 A 63-year-old-white woman, gravida 1, para 1, was admitted to the hospital because of recurrence of Bartholin gland carcinoma. From ages 56 to 58, she had frequent Bartholin gland abscesses. These were treated with incision and drainage and antibiotics. At last, a biopsy specimen proved the presence of Bartholin gland squamous cell carcinoma. She was treated with local excision and radiation therapy. Five years after the original treatment, she had edema and recurrent tumor extending into the rectovaginal septum and was referred to us. Posterior exenteration, bilateral pelvic lymphadenectomy, radical vulvectomy, and bilateral inguinal lymphadenectomy were done. Histological examination showed moderately differentiated squamous carcinoma with free margins and negative lymph nodes. The patient died on the 40th postoperative day from pelvic abscess with small bowel perineal fistulae.

ELECTRON MICROSCOPY

Electron microscopy studies were done on the specimen of one patient having well differentiated squamous cell carcinoma (Case #4). Ultrastructural examination showed a sheet of large neoplastic cells with closely attached cytoplasmic membranes. These cell borders contained slightly dilated intercellular spaces and numerous complex lateral interdigitating microvilli (Fig. 4). Abundant, well-formed desmo-

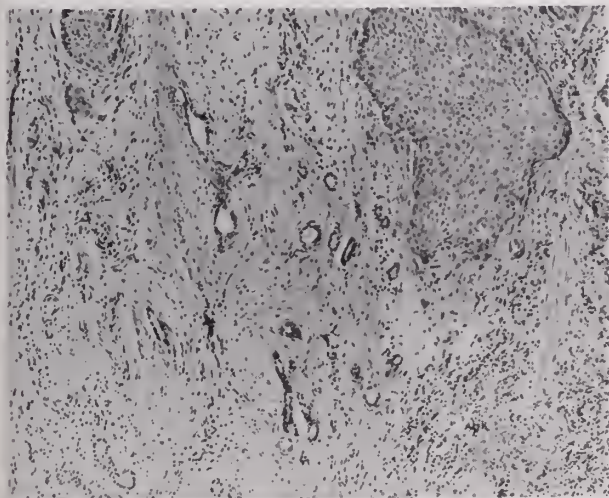


Fig. 3 Case #4. Moderately well differentiated squamous cell carcinoma of the Bartholin gland with normal Bartholin gland tissue (H & E x 40).

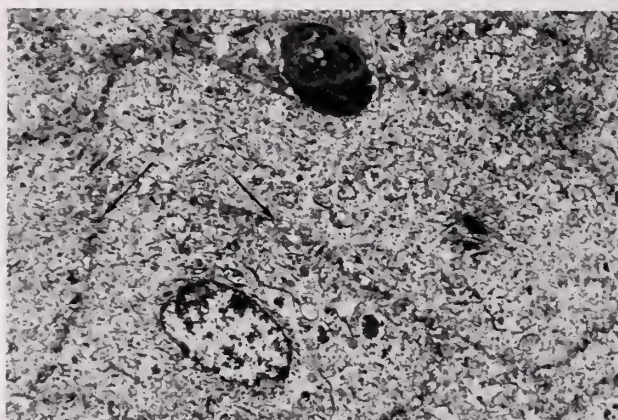


Fig. 4 Case #4. Squamous cell carcinoma of the Bartholin gland, well differentiated, showing interdigitating microvilli (E.M. 3, $\times 680$).

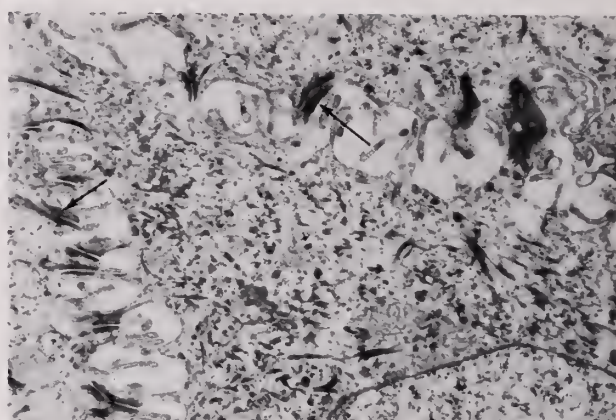


Fig. 5 Case #4. Squamous cell carcinoma of Bartholin gland, well differentiated, showing tonofilaments attached to desmosomes (E.M. 20, $\times 520$).

somes were discernible. The nuclei of the neoplastic cells were large and round and contained prominent nucleoli. Heterochromatin in the nucleoli was scanty and was concentrated in peripheries of the nuclear membranes. The cytoplasm contained a small number of mitochondria granular endoplasmic reticulum, polyribosomes, and some dense bodies with a large number of tonofilaments scattered throughout the cytoplasm, some attached to the desmosomes (Fig. 5). No definite membrane-bound secretory granules were identified.

This examination showed that squamous Bartholin gland carcinoma presented exactly the same characteristics as squamous cell carcinoma of the vulva.

DISCUSSION

The average age of patients with Bartholin gland carcinoma has been reported as 49 to 53 years old with an incidence range of 18 to 71 years.^{1, 3, 4} The average patient age for carcinoma of the Bartholin gland is less the average age of 58 years, which is that for women with carcinoma of the vulva.⁴ In this series, the average age was 52.5 and the range was from 35 to 63. The presenting complaint of most patients with Bartholin gland carcinoma is that of pain or a tumor in the vulva.¹ However, in 50% of the patients in the series reported by Chamlian and Taylor, inflammation and infection of the Bartholin gland was the presenting symptom.³ Usually, the mass is hard with a tendency for early fixation to deep tissue spreading toward the vagina, recto-vaginal septum and pubic bone. In our series, malignancy was not suspected at the time of clinical presentation in four of six cases (66%). One patient had a two-year delay in diagnosis.

Epidermoid carcinomas account for 45.8% and adenocarcinomas 48.6% of all primary Bartholin gland cancer.⁵ However, Chamlian and Taylor³

described four types of carcinomas: Adenocarcinoma (33%), squamous cancer (33%), adenoid cystic carcinomas (25%) and undifferentiated carcinoma.¹ Melanomas and sarcomas have also been reported.¹ Squamous carcinomas of the Bartholin gland are similar to squamous carcinomas of other sites with varying amounts of Keratin formation and varying degrees of cytological atypism. Adenocarcinomas are usually mucin-producing and are usually well-differentiated with little cellular atypism.³ In this series, one patient had adenocarcinoma, while the remaining five had squamous carcinomas. One tumor was poorly differentiated, three moderately differentiated and two well differentiated. Barclay *et al*¹ propose radical vulvectomy, with bilateral femoral and pelvic lymphadenectomy, partial resection of the levator-ani muscle and wide excision of the vagina in the involved side. Exenteration may be required if contiguous organs are involved. In this series, all patients were treated by radical vulvectomy and lymphadenectomy. One patient also required a posterior exenteration.

The prognosis for carcinoma of the Bartholin gland is worse than that of the vulva because of its aggressive behavior. In a review by E. R. Wharton, Jr., only nine of 109 patients survived five years without evidence of disease.⁴ Size of the lesion, histological type, aggressiveness of the tumor and host resistance are factors that will influence prognosis, but the most important determinant seems to be the status of the lymph nodes. Of eight patients surviving five years reported by Chamlian and Taylor, only one had positive nodes at the time of therapy.³ All the patients with positive nodes died of the disease in

(Continued on page 674)

Closed Intramedullary Nailing of Femoral Shaft Fractures Using the Fluted Nail

FRACTURES OF THE FEMORAL SHAFT continue to be common major orthopaedic injuries associated with significant morbidity, medical expense and disability. The standard of treatment remains that of an initial period of skeletal traction (four to six weeks) followed by another eight to ten weeks in a plaster cast.¹ Advances in plaster techniques have allowed the spica or body cast to be replaced by the cast-brace which is hinged at the knee to allow for knee motion. This may involve plaster around the waist, especially in those patients with fractures of the proximal femur.^{2, 3}

BACKGROUND

Küntschner in 1940 first reported his experience with an intramedullary nail of a cloverleaf design. Since that time, this technique has gained extensive popularity.⁴ A variety of nails have been designed and continue to be used.⁵ Although Küntschner advocated a technique of closed insertion of the nail over a guide wire under fluoroscopic control, most orthopaedic surgeons turned to an open technique. Earlier reports of excessive infection rates⁶ have been followed by evidence that acceptable rates of sepsis are possible.⁷⁻⁹ Although traction-cast techniques are relatively safe, there is an associated incidence of difficulty in obtaining osseous union and full function of the extremity. In several large series, 6% to 29% of patients experienced difficulty with healing of their fractures and thus delayed surgery was often required.^{7, 9-12} Comparative figures for an open intramedullary technique have ranged from 5% to 16%. Knee motion appears to be more readily retained following internal stabilization.^{9, 13}

Carr compared the socioeconomic factors and complication rate for open intramedullary nailing vs traction casting techniques in a series of patients treated in the 1960s. He found that patients who had internal fixation spent less time in the hospital (1 ½ months compared to 2 ½ months) and went back to work much sooner (9 ½ months vs 13 months).⁷

In an effort to minimize the infection and non-union rate, the technique of closed nailing was

revived in this country, largely by Clawson in Seattle.¹⁴

In 1971, Clawson reported 46 fractures internally stabilized with a Küntschner nail via a closed technique with no infections or non-unions.¹⁴ Böhler from Vienna had earlier reported in 1968 a series of 308 closed nailing with no non-unions and an infection rate of 1.7%.^{15, 16}

The potential advantages of this method were impressive. Anatomic reduction of the fracture and prompt activity of the patient could be achieved. Limiting the surgical exposure to the trochanteric region reduced blood loss and the risk of osteomyelitis. Also, preservation of the periosteal and soft tissue envelope at the fracture site appeared to favor early healing of bone.

Two earlier major developments were of great benefit to the technique: (1) the invention of the mobile image-intensifier which dramatically improved the surgeon's ability to follow visually the steps in the operative procedure while keeping x-ray exposure to minimum levels; and (2) Küntschner's equipment for guided power reaming of the medullary canal. With this instrumentation, the surgeon was no longer limited by the diameter of the isthmus of the femoral canal in deciding how wide a nail to employ. Küntschner's motor-driven reamers were flexible and cannulated to

The closed intramedullary nailing of femoral shaft fractures using the fluted nail was begun at the University of Missouri-Columbia Medical Center in 1979. The results have been encouraging. In 19 cases, all fractures have healed, or are healing, with no infections and return of knee motion has been excellent. Average hospital time for isolated femoral fractures has been 17 days. The author states that this technique is an equally satisfactory treatment for femoral non-unions and delayed unions.

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Fig. 1 Curvature of the fluted nail corresponds to the natural bow of the femur.

permit them to track over a guide pin placed in the medullary canal. The reamers were employed in progressively larger sizes and the medullary canal precisely reamed to a diameter sufficiently large to accommodate a nail strong enough to permit immediate weight bearing.⁴

Concern has been expressed regarding the effects of reaming on the vascular supply of the diaphysis. In an intact long bone, the nutrient artery and, thus, the medullary circulation supplies two thirds of the inner diameter of the cortex with the outer one third being nourished by periosteal blood flow.¹⁷ Although reaming obviously damages the medullary supply, the periosteal circulation if undisturbed expands enormously to compensate, thus perhaps accounting for the clinical impression that fracture healing followed closed nailing is more rapid than that achieved by open techniques.

The efficacy of this technique has been further established by Hansen and Winquist.¹⁸ In a sequential series of 500 cases, they noted only two

infections (0.4% incidence) with a union rate of 99.4%. Ultimate function was superb with an average knee range of motion of 130 degrees. While total hospitalization time averaged three weeks, cases with isolated femoral fractures had an average hospitalization time of 12 days. Eighty-seven percent of all fractures appeared solidly united at three months.

While the Küntscher nail continues to be a popular device, Allen *et al*, in 1978, introduced the fluted intramedullary rod (Fig. 1) which, in comparison with nails commonly used, exhibited an increase in bending strength of from 40% to 80% and an increase in torsional rigidity of from 230% to 3,000%.¹⁹ Thus, the fluted nail is unquestionably the strongest intramedullary device available and offers the best fixation in the medullary canal against rotation and telescoping. It is indicated for fractures occurring from 6 cm below the lesser trochanter to 15 cm above the knee (Fig. 2).

TECHNIQUE

The patient is admitted to the hospital and placed in balanced skeletal traction with a tibial pin. An observation period of from five to seven days is then recommended to allow the identification of any other occult injuries as well as to allow the period of peak incidence of the fat embolism syndrome (12 to 36 hours) to pass. Heavy traction (30 to 40 lb) is used to maintain the fracture out to length or in slight distraction which greatly aids the subsequent nailing. At surgery, the patient is placed in the lateral position on a table which will accommodate the C-arm of the image-intensifier with the hip and knee of the involved extremity flexed. The fracture is reduced and an 8 cm. longitudinal skin incision is made laterally above the greater trochanter. The piriformis recess at the base of the trochanter is identified and the cortex penetrated. A guide wire is placed down the

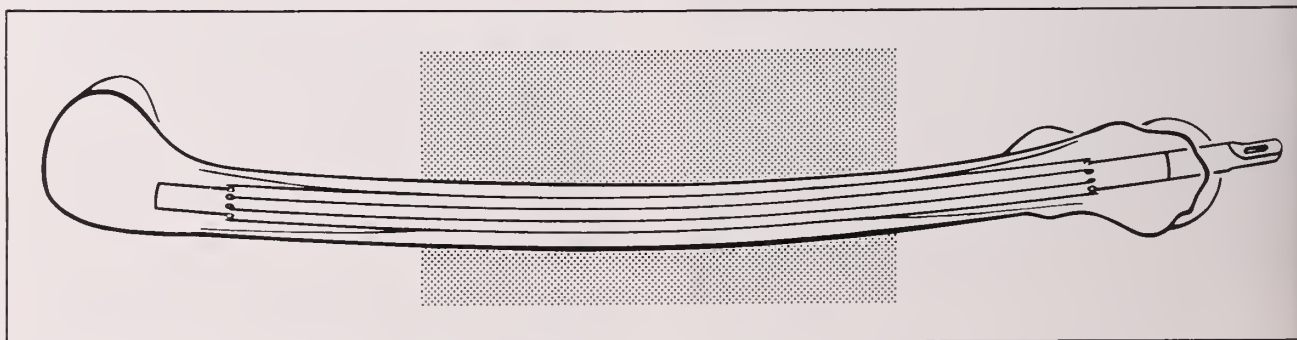


Fig. 2 Fluted nail is indicated for fractures occurring from 6 cm below the lesser trochanter to 15 cm above the knee.

medullary canal and across the fracture site under visual observation via the image-intensifier (Fig. 3). Progressive reaming with the flexible reamers over the guide wire is done and followed by insertion of a fluted nail 2 mm smaller than the largest reamer used. Postoperatively, the patient is allowed up on crutches as soon as he has leg control with weight bearing as tolerated. He is encouraged to continue to use crutches for six weeks until good quadriceps function is obtained. Particularly unstable fractures may require a short period of postoperative traction or the addition of a cast-brace.

RESULTS

A combination of this superior technique and superior device was begun at our center in 1979. To date, 18 fresh fractures, one patient with delayed union and one with non-union have received such treatment. The initial results have been very encouraging. With an average follow-up period of eight months involving 19 cases, all fractures have healed, or are healing, with no infections. Average hospitalization time for iso-

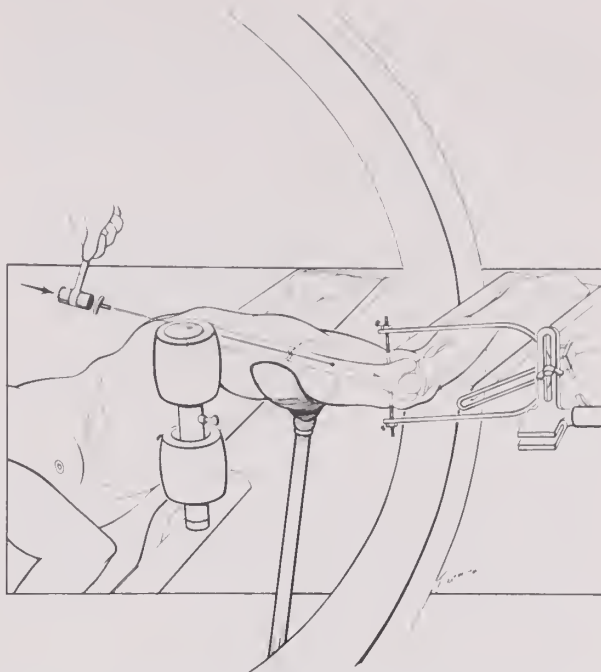


Fig. 3 Positioning of patient for insertion of guide wire and nail.



Fig. 4 Transverse middle-third fracture in a 26-year-old woman three weeks post-nailing.



Fig. 5 Established proximal non-union in an 18-year-old man six weeks post-nailing.

lated femoral fractures has been 17 days. Return of knee motion has been excellent (average 125 degrees).

A cast-brace was used in one patient to correct 15 degrees of valgus angulation and augment fixation in a distal fracture.

An example of transverse fracture at the isthmus in a 26-year-old woman is shown in Fig. 4. Note the exuberant periosteal callus formation at three-weeks post-nailing.

In one case, the fluted subtrochanteric nail which is larger proximally to allow for better purchase in the larger medullary canal in the trochanteric region was used (Fig. 5).

In summary, we feel that the fluted intramedullary rod inserted via a closed technique offers the most elegant treatment of fresh femoral fractures and an equally satisfactory treatment for femoral non-unions and delayed unions.

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Carcinoma of the Bartholin Gland

(Continued from page 670)

Barclay's series.¹ In this series, two of six patients had positive inguinal nodes. One of these is living with local recurrence at the level of the perineum. The other developed a local recurrence cured with radiation therapy. Collius *et al*⁶ have found that centrally located vulvar lesions, like carcinoma of the Bartholin gland, can metastasize directly to the pelvic nodes, bypassing the inguinal nodes. However, four of our patients had pelvic nodes resected and all proved to be negative. Two patients did not have these nodes resected and survived more than five years without evidence of disease. Thus, in this series, pelvic lymphadenectomy did not improve survival. Neither of the two patients with inguinal node metastasis developed pelvic or distant metastasis. Both had local recurrences.

Five patients received adequate primary treatment. One died of a pulmonary embolus one month after discharge. Of the four remaining, three had local recurrences and retreatment

cured the patients in two instances. The other patient refused further treatment and is living with her disease.

Local recurrences occurred in 75% of the patients thought to be adequately treated. Thus, wide free margins should be sought and prophylactic radiation therapy should be considered, especially when the margin of resection is narrow.

In this series, there was no case of pelvic node metastasis. There was a 36% incidence of inguinal node involvement.

Electron microscopy did not prove useful in differentiating squamous carcinomas of the Bartholin gland from squamous carcinoma of the vulva.

CONCLUSION

Excision of the Bartholin gland tumor is preferable to marsupialization in any patient in the premenopausal or postmenopausal age. In patients of any age, excision of a solid tumor in the Bartholin

gland should be performed. This approach will avoid delay of diagnosis.

Local recurrences are frequent. Thus, careful post-treatment follow-up is mandatory.

Since there is a high incidence of local recurrences, wide surgical margins should be obtained and the possibility of adjuvant radiation should be considered.

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ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients; some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested as a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

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President's Message

Medicine, within the United States of America today, is most assuredly at an all time high of productivity. Scientific brilliance in other endeavors, such as space technology, petro chemicals, food processing, electronics, physics and even the ancient art of weaving, have been of direct benefit to medicine in contributing to an almost explosive increase in technology. What we are able to do in medicine today may seem miniscule in the era of tomorrow but now fills some of us with a sense of promise — of imminent discovery — of magnificence in being part of a community that wishes to build rather than to tear down, to improve rather than to become complacent, to be of greater service rather than to rest on the laurels of events past.

Medicine worked hard to purge itself of the pretender and the opportunists. With the aid of the American Medical Association, and great financial help from private philanthropy, medicine caused some 40% of its numbers, those who did not measure up to publically published standards, to leave the profession between 1880 and 1900. With direct assistance from Abraham Flexner, acting on invitation and supported by the Rockefeller Foundation, medicine set strict training standards which further decreased the numbers of those who could rightfully claim the status of physician. This was and most certainly is self regulation of which our country, our patients and our profession not only should be but are quite proud.

With the awareness and the direct financial support of the private sector, better trained, young physicians were developed. Direct financial support from the Kellogs, the Rockefellers, the DuPonts, the Rands, the McCormiks, Salvation Army, Red Cross and Community Chest, representing the citizens who contributed what they could, provided funds which permitted total medical care for anyone in need of medical care who requested assistance. No one was turned away for lack of funds. The gratitude of those who received assistance was a suitable match for the genuine interest and sincerity of those who provided the service. This era of the growth of medicine was entered into after World War II and certainly was of direct benefit to many communities. The Hill Burton funds were directly responsible for many community hospitals and the G.I. Bill for many of the doctors who staffed those same hospitals.

But then times began to change. The costs of delivering medical care found a few new partners. First appeared a bureaucracy to administer Medicare and then Medicaid. With the bureaucracy came the increased costs of regulation. Regulation resulted in increased administration followed rapidly by allegation, fabrication and associative defamation, all running parallel to explosive inflation.

If the above changes were not enough, an ever increasing problem of the special interest, limited talent, restricted capability, fringe discipline who wishes to enter into the practice of medicine, is most certainly in our midst today. Without question, several of these disciplines are sincere, devout in training and ethics, and, in themselves, a credit to the medical community. Again, without question, there are those among them who have delusions about their limited capabilities. The better organized and those with the large "war chest" try to purchase status through a process of legislative rule, making or trying to make use of accepted terms out of context in limited areas and hoping to expand in the future.



Richard V. Bradley, M.D.

(Continued on next page)

Members of the medical profession can see and hear and know the good from the bad. It, the medical community, therefore, has a moral obligation to orient its patient population as to the difference. At the same time, medicine must police itself (with support of the population). Medicine must also maintain its high training standards for physicians and should also maintain vigilance concerning all who wish to align themselves with the medical, and nursing, professions in the treatment of patients.

Medicine has had to face new problems from within the regulatory agencies. Congress has been derelict in passing laws concerning medicine which left the development of regulation to a new bureaucracy. Their indignation as to the content of controversial regulations is much like the captain who says that a sinking vessel was not their direct responsibility. Let's face it. The congress-person who helps to pass a law is morally responsible for the content of regulation in completely the same way that a physician is responsible for all that is done for his patient. The Department of HEW — H2S is also suspect in its rush to regulate and it seems to forget that the medical profession is made up of human beings who are taking care of fellow human beings. It seems ludicrous that H2S can say that a given population area will be permitted X-number of pregnancies in a given time period or to say that too many hysterectomies are being done while they continue to distribute a HEW book saying that hysterectomy is the sure way to birth control.

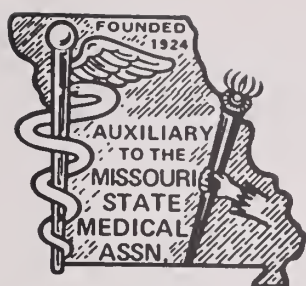
And then there is the Federal Trade Commission whose leader says that "the professions are being investigated because of their low productivity"; that the FTC "wants medicine to police itself" but is in danger of retrospective and retroactive condemnation of a code of ethics at the non-appealable whim of that same FTC.

It would appear, from time to time, that all of this external aggravation would cause medicine to quit, give up or otherwise bow to its adversaries. A few have and more will, but the Missouri State Medical Association keeps getting word from your local Medical Society that there are left some who will fight for their patients and for good medicine. We remain open and active, and we welcome your support and personal input.

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The campaign is a three-year effort. The focus for 1979-1980 was food for fitness. The focus this year is exercise and physical fitness. Next year, the program will continue with emphasis on mental health and fitness.

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Mrs. Donald A. Fakhoury
President

Increase in Physicians Affects Practice Management

By

Leif C. Beck, LL.B., C.P.B.C.
Vasilios J. Kalogredis, J.D., C.P.B.C.
Geoffrey T. Anders, J.D., C.P.A.

THE INCREASING number of new physicians finishing medical school and residency training each year is becoming more and more a factor in health planning. *The Wall Street Journal* recently featured the trend in a front page article exploring the "surplus of MDs."¹ As management consultants and attorneys for medical groups and individual physicians, we are particularly concerned about what this fast-developing trend will mean to our clients.

The subject so far has had little written comment, because it is sneaking up rather quietly on physicians. We consider this article one of the first critical discussions of how the increasing doctor supply actually is affecting medical practice arrangements. These effects vary depending on the age, specialty, and experience of the doctor(s) involved. As the supply/demand situation moves inexorably onward, the effects continue to change.

HIRING A NEW ASSOCIATE

Medical practices over the past ten years have been generous in hiring new doctors. Other professionals, particularly attorneys and accountants, were hard put to understand their doctor-clients' hiring at \$40,000 salaries and creating full income parity in just two or three years. Yet the nature of medical practice and the competition for additional well-qualified specialists justified that treatment. We followed the trend by assuming that doctors' starting pay would be at least \$5,000 or more higher each year than the prior year.

Now there is evidence of an opposite trend. Despite continuing inflation, new physicians' starting salaries have not increased particularly over the past couple of years. Offers ranging from \$30,000 in primary care to \$50,000 in various specialties appeared normal in 1978 and again in 1979.

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These seem to be reasonable offers for July, 1980 hirings. We wonder if they may continue to be nearly stable into 1981. Salary levels that do not increase by at least 10% per year over the several years involved, indeed are lower in terms of real dollars.

The trend which we notice among small medical practices also has been observed at the large, multispecialty clinic level. In 1979, *Medical Economics* surveyed clinic administrators and found that recruiting well-qualified new physicians was becoming both easier and less costly.² Our experiences with large clinic clients are the same.

Although medical practice decisions must be "economic," just like those of any other business, hiring physicians are not necessarily being selfish in holding down their salary offers. Today, more doctors of the same specialty are "competing" for the same patient base. We see a bona fide uncertainty among existing practices as to whether they can expand rapidly enough to afford additional doctor salaries.

In effect, even a busy senior doctor now worries whether he can maintain his own income and pay \$50,000 or more (including increased expenses) to support an associate. As inflation ravages his household and his children's tuitions, the senior doctor understandably resists offering more starting salary than absolutely necessary.

On the other side, the young doctors are finding fewer opportunities to start practices "from scratch" and become highly paid in just a few years. More of them are seeking to join good existing practices at the same time as the seniors are pulling back. A classic example of the law of supply and demand is at work, and it will undoubtedly continue to squeeze young doctors.

One of our employment features may become more useful in view of these circumstances. A senior doctor (or a group of them) unsure whether he can afford a new associate might lower the basic starting salary, thereby reducing the financial risk. In turn, he may promise additional pay once

he breaks even financially on the new doctor's involvement — perhaps by paying "incentive compensation" geared to practice gross or net income over the agreed break-even figure. In this manner, the senior(s) will have some insulation against risk, while the new doctor will be assured of a better income if he can carry his cost.

The increasing doctor supply also makes "restrictive covenants" much more important to the hiring doctors or groups. Physicians have disdained them in the past as being unnecessary since there were more than enough patients to serve with or without a new doctor's competition.

Now there is concern that an associate who leaves after one year could siphon away some of the practice and that the seniors could not recoup the loss. The senior doctors may be leery of staking a potential competitor as he develops his patients and referrals at his employer's expense. Requiring a promise not to enter competitive practice at the end of the employment, which is enforceable if reasonably drafted, is becoming an important by-product of the changing economics.

PURCHASE, SALE OF PRACTICE

The supply-demand factors clearly make successful medical practices increasingly valuable. The physician-owner of a practice can earn considerable income, while others cannot start comparably successful work.

In turn, young doctors may prefer to purchase existing practices. Seniors then realize that they can sell their practices just like any other items of property. To the extent the purchase price exceeds the value of the physical facilities, it is paid for "goodwill."

In the years of physician scarcity, there was little or no goodwill value to most types of medical practices. We had testified in various courts of law, after considerable survey and research, that many specialties had no goodwill — no one would have "purchased" the practices involved. Young doctors just as easily could have started their own successful offices or joined groups eager for top-flight help; in effect, there was no market.

Even when goodwill value was recognized, the figures were moderate. Many consultants used 20% of a year's gross income or 33⅓% of a year's net income as starting points for such valuations.

Now such guidelines are meaningless. Doctors planning to retire have in various specialties asked for prices equal to 100% of their practices' annual net income. In a few recent cases, the figures have been one year's gross income. Accounting prac-

We present the accompanying article, a reprint from *Pennsylvania Medicine*, June, 1980.

We thought it prudent to present this information on a subject which we believe to be one of increasing significance, now that the Federal Government has seen fit to underwrite an escalating oversupply of physicians in the decade to come. — THE EDITOR

tices have "sold" for one year's gross income over the years, leading us to question whether such medical practice offers were suggested realistically or on the strength of accountants' uncritical and traditional experiences.

Young doctors have at least seriously considered accepting these offers, even though the figures have been refused or negotiated downward.

We no longer feel confident that a practice's goodwill value can be determined reliably. The times seem to be changing so fast on this issue that our advice to senior (selling) doctors is guarded: suggest a considerable price, approaching or even exceeding one year's net income depending on all the circumstances, and then be prepared to hold fast or negotiate downward depending on the young (buying) doctors' responses.

Our advice to the young physician is similarly indecisive: consider how much you really want to practice in the subject area, how good (or slim) your chances are of doing so other than by purchase, how likely other doctors might be to bid on the same practice, etc. You may agree to a high goodwill value for the opportunity to take over a mature practice, paying the price over a period of years; or you can reject it and go elsewhere.

The uncertainty over goodwill has led us to recommend a modification designed to help both sides achieve a fair result. The high value suggested by the senior physician may be reasonable when the practice produces an agreed level of income for the "buyer."

When the practice is less productive for the successor doctor then the purchase price may have been too high. The sale price may be payable over a number of years with a proviso that any annual payment will be reduced or deferred if the continuing practice's gross income falls short of agreed levels. While such an arrangement requires safeguards for the selling doctor, it might offer the young doctor enough assurance to go ahead.

We recognize that the concept of "selling" a medical practice is repugnant to the profession's ideals. A physician undertakes to care for his patients as best serves their needs; transferring them to another doctor for a purchase price may contradict that principle. Nevertheless, the economic reality cannot be ignored.

Young doctors need to find ways to enter practice to use their training and skills profitably. Senior doctors have patient relations which they can pass on to well-qualified successors. Practices thus are being bought and sold increasingly. This trend will continue to grow as the doctor surplus develops.

PROMOTION TO EQUAL PARTNERSHIP

Since practices have increasing goodwill values for outright purchase, it stands to reason that the same factors deserve recognition when newly hired associates are taken into partnership or corporate co-shareholder. We consider the underlying economics for corporations the same as for partnerships. For convenience, this article will not differentiate between partnership and professional corporation status.

A senior doctor who doubts whether his practice can afford a first-year associate's salary will be even more concerned whether it can thereafter double in scope to support an equal income-sharing partner. This fear is merely an added manifestation of the basic concern over the growing doctor supply.

Until recently, a senior physician (or group) tended to promote his associate to equal income parity quickly. The standard arrangement had been to provide the new partner with 60% of a full income share in his first year (his second year with the practice, following a year's employment), then 80% in the second year and full parity thereafter. The senior partner(s) rarely experienced any drop in actual incomes during these years.

Now, however, we see a moderation in this willingness to promote quickly. More young doctors are being told that they will reach equal income rights over five years instead of three. The seniors are concerned that their practices may take that long to increase their volumes proportionately. As a result, a new member might now receive 60% of a full share in his first partnership year, then 70, 80, 90 and finally equal rights in the fifth such year.

Other arrangements are beginning to take a different approach. Senior doctors are sometimes conditioning the new members' shares upon prac-

tice growth sufficient to carry the increasing shares. For example, one high-income specialist took his associate into partnership at a 30% share of income, but the young doctor's share would not increase to 40% or thereafter to 50% until and unless certain agreed practice net income figures were reached. Especially since those target figures increase yearly to recognize inflation, we are not sure whether the young partner will ever reach full parity.

Such arrangements are not necessarily unfair to incoming partners. A senior doctor who has built a successful practice and created a certain income flow may well deserve to continue enjoying it — assuming he continues to give it his full time and attention. Conversely, even if a doctor fresh out of training is capable, it is questionable that he has a "right" to a high income if he cannot attract enough patients by his own devices. In effect again, the increasing doctor supply may thus be creating an income sharing differential to recognize goodwill.

Some people propose that the goodwill item be recognized directly. They would require an incoming partner to pay a substantial lump sum purchase price for partnership. Although this approach has some logic (i.e., if a doctor may sell his entire practice for a price, he may sell half of it to his new partner), usually we do not agree.

We consider goodwill an opportunity to earn continued income which in fact should provide income, even though taxable, to the continuing partner(s). This approach is not particularly undesirable to a senior doctor especially if his higher income carries with it tax-free deflection into a retirement plan for his benefit. And it would permit the new doctor's payment of a purchase price to be tax deductible, which would help him avoid an especially onerous burden. The goodwill element should be recognized by both members so they can proceed to work together in mutual respect and professional confidence despite economics.

PAY TO DEPARTING PARTNERS

Group practices that are costly to join should be comparably more valuable when members die, retire or otherwise withdraw. We are beginning to advise many of our clients to reconsider their partnership termination provisions in light of changing economics.

Most partnership or group corporation arrangements have over the past ten to twenty years been rather stingy in paying departing members. They

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tion-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug

and oral anticoagulants; causal relationship not established.

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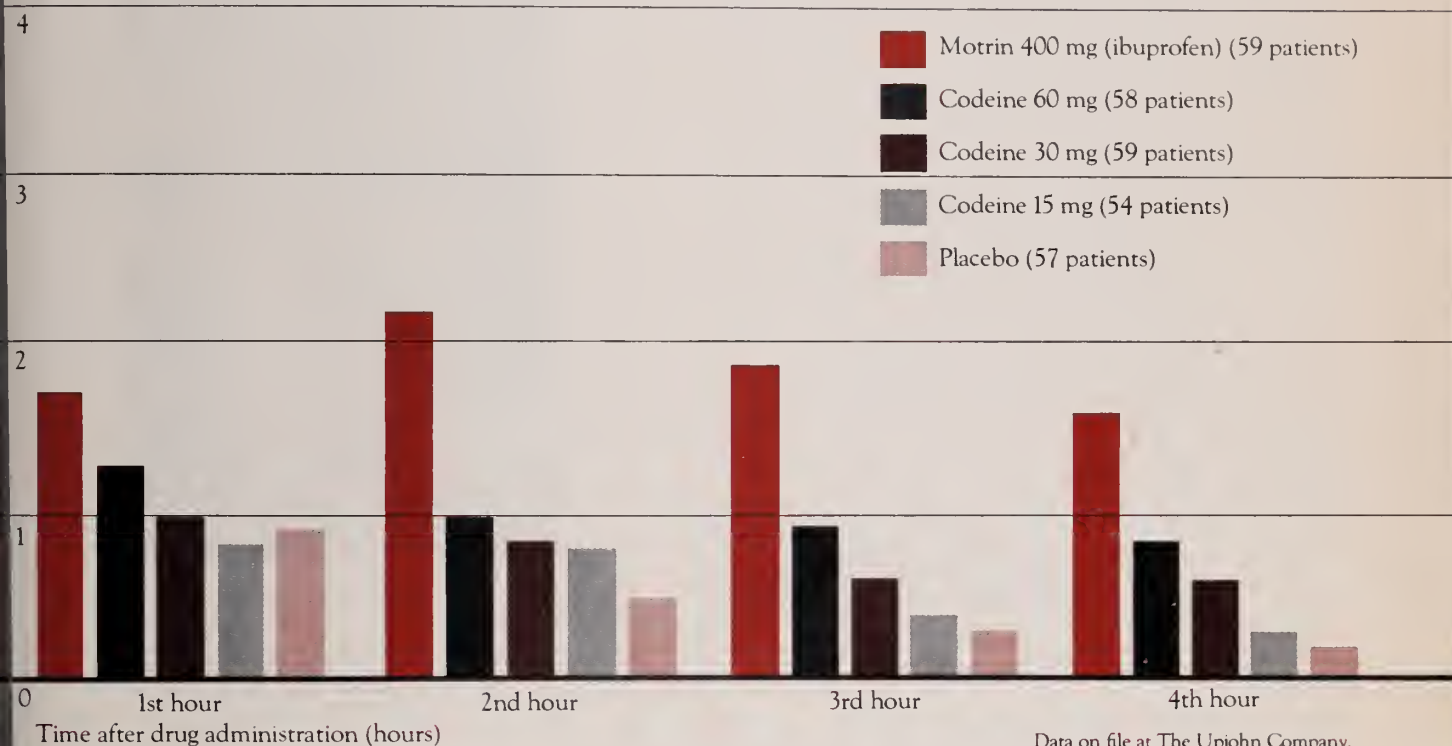
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Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. Aspirin used concomitantly may decrease Motrin blood levels. **Coumarin:** Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy or by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

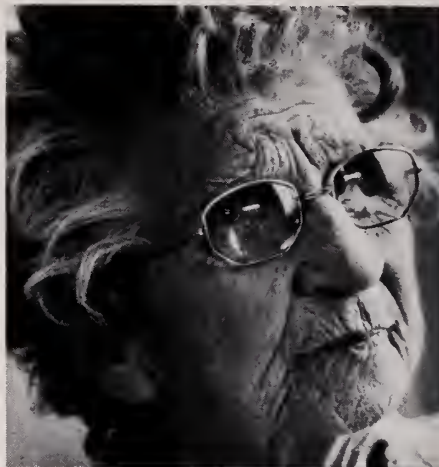
Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400 or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

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have recognized that a partner's death or withdrawal may leave the ongoing partners with a crushing patient load or else with a new doctor rapidly receiving the same equal income share.

As a result, the pay-out typically was limited to his share of the outstanding accounts receivable, often equated to two or three additional months' pay, plus return of "capital interest" in his partnership or the "book value" of his professional corporation stock.

We are observing and recommending increases in many such distributions. As an example, the group which previously provided only three months' extra pay for a retired or deceased member might amend its agreement to provide six or nine months' extra pay. The increase, no matter how categorized in the partnership agreement or corporate employment contract, is really a distribution for the goodwill value the departing member will leave behind.

Increasing the termination pay-out may be justified on paper, but the ongoing partners naturally will question whether they can afford it. In our sense of priorities, the ongoing practice must be protected. Supporting a departed partner must be secondary to that need. A good approach is to spread the distributions over several years; the ongoing group's monthly pay-out would thus be reduced while the remaining (lesser) income might be paid to a young doctor coming in as a replacement.

Above all, the increasing goodwill value does not justify securing the pay-out with life insurance. Insurance fails to provide the required funds except upon a partner's death, and yet the value should exist whether a member dies or quits.

When goodwill value exists, the practice should be able to provide income enough to pay out a departing member. A group that doubts such capacity probably has no goodwill value. Life insurance should not becloud those underlying economic realities, especially since it requires costly premium payments.

Finally, the goodwill concept makes it important to consider what will happen should a partner withdraw and open a practice in the same service area. Although groups usually recognize a member's right to leave and practice competitively, logically there should be a reduction in his termination pay-out.

In effect, a competing ex-partner will probably have taken a portion of his old group's goodwill value with him in the form of patient contacts and

referrals, so he should not also be paid for it. In this case, we suggest that the separation pay be reduced to its accounts receivable equivalent, perhaps two or three months' pay, or eliminated altogether if a withdrawing member chooses to compete.

CONCLUSION

Despite some arguments to the contrary, medical practices are subject to the laws of supply and demand just as other businesses. The dramatic infusion of medical school graduates and foreign doctors over the past ten years, responding to a perceived shortage of physicians, now is beginning to create a doctor surplus.

Changes in inter-doctor economic arrangements are resulting. We expect the economic realities to continue increasing the importance of a practice's goodwill value.

REFERENCES

1. See "Will surplus of MDs be good for patients? Look at San Francisco," *The Wall Street Journal*, March 13, 1980, p. 1.
2. See "Group practice jobs: Suddenly it's a buyer's market," Harry T. Paxton, *Medical Economics*, November 20, 1979, p. 27-34.

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in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

MEMBERS GAVE THE AMA HIGH MARKS in providing services, according to a recent survey. However, most (52.5%) said they belong for national representation. Of the members responding, 37.2% cited the importance of belonging to their professional association. Slightly more than 10% said they belong because of membership services, but all respondents rated these services highly. Most nonmembers cited cost as their reason for not belonging. Thirty-two percent of nonmembers said the AMA does not represent their views. The questionnaire was sent to 5,000 members and 5,000 nonmembers.

A NEW COUNCIL FOR MEDICAL AFFAIRS is replacing the Coordinating Council on Medical Education as part of a plan to restructure the system for accrediting medical education. Like its predecessor, the new council will be composed of representatives from five parent bodies: the AMA, the Association of American Medical Colleges, the American Board of Medical Specialties, the Council of Medical Specialty Societies, and the American Hospital Association. Each of the parent groups will be represented by its two chief elected officers and the chief executive officer. An unofficial draft of the Council for Medical Affairs' bylaws has been endorsed by representatives of the parent bodies. However, articles of agreement have not yet been ratified by the memberships of some of the five organizations.

GUIDELINES FOR MEDICAL SOCIETIES on initiating or improving health instruction in local schools are contained in a new AMA pamphlet. *The Physician's Guide to the School Health Curriculum Process* also provides a basic orientation to health instruction for kindergarten through grade 12. Cost is \$3.50 each for 1-10 copies; \$3 each for 11-49; and \$2.75 each for 50 or more. Write OP-090, AMA Order Dept., P.O. Box 821, Monroe, Wis. 53566.

A COMPLETE LISTING of AMA publications on improving medical practice management is now available. The publications cover topics such as office design, professional corporations and patient relations. Educational aids for medical assistants are also offered. Contact the Dept. of Practice Management, AMA Headquarters.

A CAMPAIGN TO INFORM THE PUBLIC on ways to lower health care costs has begun in Indiana. The program is sponsored by the Indiana Voluntary Effort Task Force to Contain Health Care Costs and is this year's priority project of the Auxiliary of the Indiana State Medical Association. The task force is a coalition of health care providers, suppliers, insurers and representatives from business, labor and government. The campaign includes counter-top displays, brochures, a VE newsletter, and public service advertisements in the media.

A REVOLUTION IN LABORATORY PRACTICE in the United States has made laboratory tests more advanced and of better quality than in any other nation in the world, says a new AMA book. *Laboratory Tests in Medical Practice*, a 200-page hardbound monograph, was developed by the AMA Council on Scientific Affairs in response to allegations made in 1977 by HHS (then HEW) that 8% to 25% of laboratory test results are inaccurate. The council named an advisory panel of 14 experts to study current uses of laboratory tests, errors to which they are prone, the quality control required, and the clinical relevance of increasing precision. Twenty-seven physicians contributed to the volume. Cost of the book is \$14 each for 1-10 copies; \$13 each for 11-49; \$12 each for 50 or more; and \$17 each for foreign orders. Write OP-065, AMA Order Dept., P.O. Box 821, Monroe, Wis. 53566.

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- Dec. 4-5 St. Luke's Clinical Conference
(St. Luke's Hospital)
- (1951)
- Jan. 4-9 Dx & Rx of Skeletal Disorders
(Keystone, Colo.)
- Feb. 26-27 Clinical Topics in Pulmonary Medicine
- Mar 2-
May 18 Internal Medicine Review
(Monday Evenings — Jewish Hospital)
- Mar. 12-13 Gland Rounds (What's New in Endocrinology)
- Mar. 19-20 Rheumatology for the Practicing Physician
- Mar. 27-28 Vascular Diseases
- April 5-12 Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics
(Caribbean Cruise)
- April 9-10 Eighth Annual Symposium on Obstetrics & Gynecology
- May 8-9 Alumni Reunion
- May 13 Burns: The Early Days
- May 21-22 Postgraduate Course in Otolaryngology

The Edward Mallinckrodt Institute of Radiology —
Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
Contact: Ronald G. Evens, M.D., Director

- Dec. 15 City-Wide Radiology Conference —
Cardiovascular Computed Tomography
- (1951)
- Jan. 19 City-Wide Radiology Conference —
Ultrasound in Obstetrics
- Feb. 9 City-Wide Radiology Conference
- Mar. 9 City-Wide Radiology Conference —
Interventional Radiology
- April 5-12 Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics Meeting
- May 11 City-Wide Radiology Conference —
Digital Imaging and Computers Radiology
- June 13 Leroy Sante Lecture

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Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

- Dec. 4-6 The Heart 1980
(Alameda Plaza Hotel)
- (1951)
- Jan. 25-30 Traveling Medical Education Course — K.C. Southwest Clinical Society
(Steamboat Springs, Colo.)
- Jan. 29 CT of Orbital Lesions
(Truman Medical Center)
- Jan. 31-
Feb. 7 Medical Seminar at Sea — K.C. Southwest Clinical Society
(Caribbean Cruise Leaving Miami)
- Feb. 13-14 The Long Weekend: Oncology, Immunology and Infectious Diseases
(Crown Center Hotel)
- Feb. 22-
Mar. 1 Traveling Medical Education Course — K.C. Southwest Clinical Society
(Nassau, The Bahamas)
- Feb. 26 Neurological Problems in Pediatrics
Demonstrated by CT
(Truman Medical Center)
- Mar. 26 Infratentorial Lesions — CT of the Post Fossa Masses
(Truman Medical Center)
- Mar. 26-28 Perspectives in Medicine — 1951
(Hyatt Regency Hotel)
- April 24-25 The Long Weekend: Gastroenterology, Pulmonary Disease and Hematology
(Hyatt Regency Hotel)
- April 30 C.V.A. — Anatomical Correlation by CAT
(Truman Medical Center)
- May 8-9 Geriatrics Seminar
(Alameda Plaza Hotel)
- May 14-15 Surgical Problems: The Old and the New
(Hyatt Regency Hotel)
- May 28 CT Evaluation of Supratentorial Lesion
(Truman Medical Center)
- June 5-6 Symposium on Physical Fitness
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- June 25 Differentiation of Brain Enhancement by CT
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9:00 AM — Surgical Techniques Semi-
nar
9:45 AM — Morbidity and Mortality
Conference

10:30 AM — Surgical Grand Rounds

Every Tues. 9:00 AM — Medicine Staff Conference
(Except second Tuesday of each
month)

Contact: David S. Sneed, M.D., Director of Medical
Education

Greater Kansas City Radiological Society
KU Medical Center
Rainbow Blvd. at 39th, Kansas City, KS 66103
Contact: Norman L. Martin, M.D., President

(1981)

Jan. 22

Neuroradiology
(Dinner Meeting, Alameda Plaza)
5 PM — Lecture
(St. Luke's Hospital)

Feb. 11

GI Radiology
(Dinner Meeting, Alameda Plaza)
4 PM — Lecture
(Kansas University Medical Center)

Mar. 11

Nuclear Medicine
(Dinner Meeting, Alameda Plaza)
4 PM — Lecture
(St. Luke's Hospital)

April 8

Bone and Joint
(Dinner Meeting, Alameda Plaza)

4 PM — Lecture
(Kansas University Medical Center)

May 20

Pediatric Urology
(With Greater K.C. Urological Society, Granada
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(314) 882-2256

Contact: William D. Bradshaw, M.D.

Dec. 12-13

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(1980)

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Jan. 8-11

Diagnosis and Treatment of Headache
(Scottsdale, Ariz.)

Feb. 15-19

CAPD Conference
(Crown Center Hotel, Kansas City)

Mar. 3

Preceptors Day

Mar. 4-5

**4th Annual Family Practice Update
Session**

Mar. 19-20

Spring Surgery Conference

Mar. 30-31

27th Annual Urology Seminar
(Crown Center Hotel, Kansas City)

Apr. 8-9

**Primary Pediatrics for the Primary
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May 8-10

**4th Annual Missouri Cardiovascular
Conference**
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Freeman Hospital

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Contact: Joy W. Barnett, CME Coordinator

Nov. 25

Hemalog-8 and Hemalog-D
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Nov. 25

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Research Medical Center
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Dec. 3

(1981)

Chronic Renal Disease

Feb. 4

Infectious Diseases

June 3

Lung Disease

Aug. 5

Multisystem Trauma



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MSMA Members Receive Physician's Recognition Award

Forty-five MSMA members qualified for the MSMA-AMA Physician's Recognition Award in August and September, 1980.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in *MISSOURI MEDICINE* as they are received from the AMA.

August, 1980

Bernard M. Abrams, Kansas City
Federico Adler, Kansas City
Carl H. D. Calman, University City
Robert M. Drisko, Kansas City
Richard W. Gengelbach, Fayette
Mary L. Heim, Parkville
Grinny H. C. Ho, Sikeston
Joseph J. Hurley, St. Louis
Juan Kang, St. Louis
James E. Lewis, St. Louis
Ernest Lorenc, Springfield
Kalady P. Nair, Ballwin
Roman L. Patrick, Creve Coeur
Harold B. Rapp, Cape Girardeau
Jerold M. Rau, Kansas City
Karen E. Segrist, Kirkwood
Russell D. Shelden, Kansas City
Roland T. Smith, Joplin
James R. Thomas, Columbia
Randall J. Wendt, Fort Leonard Wood
David L. Wilkinson, St. Louis
Assefa Woldesemait, Kansas City
Rashid Zia, St. Louis

September, 1980

Glenn A. Barr, Kansas City
Saul Boyarsky, St. Louis
Richard J. Brennen, St. Joseph
Emery R. Calovich, Kansas City
James G. Fitz Simmons, Kansas City
Curtis U. Franklin, Kansas City
K. Vasanth Hegde, Creve Coeur
Robert E. Hughes, Kansas City
John P. Murphy, Kansas City
Larry G. Piepergerdes, Kansas City
Vallurupalli R. Prasad, St. Louis
Phyllis L. Grant Roberts, St. Joseph
Barry L. Samson, St. Louis
Earl R. Schultz, St. Louis
Elson F. Seitz, Independence
Stephen M. Slaughterbeck, Columbia
Carl N. Stout, Kansas City
Teresita M. Sy Alvarado, St. Louis
Eugene Valins, Kansas City
M. Venugopal, Poplar Bluff
Herbert A. Wenner, Kansas City
Charles F. Wilson, Cape Girardeau



NEWS

From the Medical Schools

ST. LOUIS UNIVERSITY

Max Pepper, M.D., M.P.H., chairman of the Department of Community Medicine, has started his term as president of the Association of Teachers of Preventive Medicine for 1980.



Dr. Pepper

The association is a professional society of physicians and professors who are on medical school faculties in the departments of preventive, community and social medicine. It promotes research and teaching programs in health care and behavioral sciences.

William Friedman, M.D., professor and chairman of the Department of Otolaryngology, presented two papers at the annual conference of the American Academy of Otolaryngology. The first, "Blepharoplasty — The Maxi Operation," describes a new technique for excising skin and muscle from the lower eyelids. The second, "Computed Tomography vs Laryngography: A Comparison of Relative Diagnostic Values," establishes computed tomography as the definitive radiologic diagnostic test for patients with cancer of the larynx.

Two papers were presented at the conference by members of Dr. Friedman's department. They are "Central Nervous System Connections of the Hypoglossal Nucleus" by *Margaret Cooper*, Ph.D., assistant professor of otolaryngology, and "Osteoid Producing Orbital Ethmoid Tumors" by *George Katsantonis*, M.D., assistant clinical professor. A surgical poster-presentation describing a technique for conservative neck dissection was presented by *Victor Strelzow*, M.D., assistant professor.

Margaret Cooper, Ph.D., assistant professor of otolaryngology, has received a two-year, \$22,418 grant from Whitehall Foundation, Inc. to research the neuroanatomical mechanisms involved in tongue movement. She will investigate how various areas of the central nervous system are

connected to the hypoglossal nucleus, the center for controlling tongue movement. This information may help to explain the length of time it takes for the tongue to regain movement after a stroke.

A resolution passed by the St. Louis University Board of Trustees has commended the University's medical community for its "extraordinary services" during the summer heat crisis at St. Louis City Hospital.

Due to efforts of university medical staff members, there was an unusually low mortality rate of 7% among the 81 heat stroke victims admitted to the hospital. Eleven faculty members and six teams of resident physicians and medical students were organized to treat persons who were overcome by the heat and humidity.

At the time of the heat wave in early July, the School of Medicine had taken over staffing the entire medical service at City Hospital. *J. Joseph Marr*, M.D., director of the Division of Infectious Diseases, assumed the position of chief of service of internal medicine and *Ralph Kinsella*, M.D., professor of internal medicine, became chief of staff.

William J. Keenan, M.D., professor of pediatrics and adolescent medicine, has been appointed director of neonatology at Cardinal Glennon Hospital in St. Louis.

Prior to joining Glennon Hospital, Dr. Keenan served as professor of pediatrics and of obstetrics and gynecology at the University of Cincinnati. He was instrumental in helping organize the Ohio Perinatal Society, the university's follow-up clinics in Cincinnati and its outreach program for the state. He was a member of the medical staff of the city's Children's Hospital and Cincinnati General Hospital.

Dr. Keenan is a graduate of the Stritch School of Medicine at Loyola University in Chicago and served his internship at Santa Clara Valley Medical Center. His pediatric residency was completed at Boston City Hospital and at Children's Hospital in Cincinnati.

WASHINGTON UNIVERSITY

Dr. Thomas Ferguson, clinical professor of cardiothoracic surgery, presented The Third Brian Blades Memorial Lecture at The George

Washington University Medical Center in Washington, D.C. on September 29. His subject was "Thymectomy—The Step From MG to MS."

Dr. Blades, who had a long and outstanding surgical career, received his medical school education at Washington University School of Medicine and his general and thoracic surgery training under Dr. Evarts A. Graham. After serving in the Army during World War II, he became professor and chairman of the Department of Surgery at George Washington University School of Medicine.

Samuel B. Guze, M.D., vice-chancellor for Medical Affairs at Washington University and President of the Washington University Medical Center, was installed chairman of the Board of Directors of the Association of Academic Health Centers (AAHC) during the association's annual meeting in Florida on October 4.

Dr. Guze has been a member of the Association's Board of Directors since 1976. He served as chairman-elect for the year ending in October 1980.

The AAHC is a national educational association whose membership comprises most American and Canadian institutions of higher education

with teaching hospitals and programs in medicine, as well as in one or more other health professions, such as dentistry, nursing, pharmacy, allied health, and others. The goal of the organization is to offer multidiscipline and interprofessional direction in the development of educational programs for tomorrow's health care providers.

UNIVERSITY OF MISSOURI-KANSAS CITY

The School of Medicine held its annual convocation on November 9 in the Performing Arts Center on the Volker Campus. The speakers were *Dr. M. Therese Southgate*, an editor of the *Journal of the American Medical Association*, and *Dr. Richard Bradley*, president of the Missouri State Medical Association. A reception followed the convocation.

The national Board of Medical Examiners has reported on the performance of UMKC 1979 graduates on the March, 1980 Part III examination. All graduates passed the examination on the first attempt and 62% scored above the national average. The average score of UMKC graduates was 516. The national average was 500.

Dr. Theodore Beringer has joined the Department of Anatomy as an associate professor. He will lecture in the histology segment of pathology/anatomy. Dr. Beringer was a National Institutes of Health Special Postdoctoral Fellow in physiology at the State University of New York in Buffalo after receiving his Ph.D. in anatomy from Loyola University.

Drs. Melvyn D. Goldfinger and *C. Wayne Simpson* have joined the Department of Biology with teaching responsibilities in medical physiology.

Dr. Goldfinger received his Ph.D. degree in neurosciences from the State University of New York in Brooklyn. He was a USPHS postdoctoral fellow in the Department of Physiology and Biophysics at Washington University School of Medicine in St. Louis before coming to UMKC.

Dr. Simpson received his Ph.D. degree from the University of California at Santa Barbara in physiological psychology. He formerly was a research associate in physiology and pharmacology at Bowman Gray School of Medicine.

UNIVERSITY OF MISSOURI-COLUMBIA

The J. B. Reynolds Foundation of Kansas City has given \$105,000 to the Health Sciences Library fund.

(Continued on page 691)

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Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unabsorbed medication. In children and infants, antihistamine overdoses may produce convulsions and death.

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DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.

HOW SUPPLIED:

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Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
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Ammonium Chloride	200 mg
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INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an anti-hypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effect caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency.

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions.

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.

Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: ¼ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician.

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Pioneers in Medicine For the Family

The money, which is to be given over three years, is the largest single contribution to the drive from a foundation. More than half of the \$2.7 million goal from private sources has been realized.

The present library facility was built in 1956. While the number of students served has more than tripled, the library has not had space for expansion.

The J. B. Reynolds Foundation was established 20 years ago and supports a variety of endeavors in the Kansas City region. Reynolds was president of the Kansas City Life Insurance Company from 1903 to 1937.

Prof. Milton S. Feather, a specialist in carbohydrate chemistry, has been appointed chairman of the Department of Biochemistry, succeeding Prof. James L. Gaylor.

Professor Gaylor is to become associate director of life sciences research for the E. I. duPont de Nemours and Co., in Wilmington, Del.

Professor Feather's primary interest is in the macromolecules produced in the lungs of patients with cystic fibrosis. Currently, he is collaborating with *Dr. Ricardo Martinez* and *Dr. Giulio Barbero*, pediatrician scientists, on interdisciplinary research in cystic fibrosis under a National Institutes of Health grant.

Professor Feather joined the University in 1967 in the Department of Agricultural Chemistry, which merged with the Department of Biochemistry in 1974. He had served as chairman of agricultural chemistry in 1972-1973.

The combined department now has 30 faculty members, some with joint appointments in the School of Medicine's clinical departments. They teach undergraduates in several fields, such as agriculture, dietetics, medical technology and offer a bachelor's degree in biochemistry. They advise pre-medical and pre-veterinary medicine students, teach medical students and offer master's and Ph.D. degrees in the graduate program.

The greedy man is he who sits
And bites bits out of plates,
Or else takes up an almanac
And gobbles all the dates.

But still more greedy are the ones
Whose actions never miss
Those cornfed techniques politic;
Great smile and baby's kiss.

Such greedy Congressmen ne'er give
Proper consideration
To right and wrong and facts thereto
But to the next election.

Wilfred E. Wooldridge
From "Mother Goose Brought
Up to Date"

Dr. Stanley N. Graven, professor of child health, is program director of The Robert Wood Johnson Foundation's \$7 million Rural Infant Care Program, which has made grants to medical schools in ten states. The four-year program's goal is to reduce infant mortality and morbidity in isolated rural communities where infant mortality rates are more than double the national average.

While the infant death rate in the United States has dropped 45% since 1960, other industrialized countries have also improved their statistics.

Dr. Graven attributed the U.S. lag to relatively higher infant death rates among black and other minority populations in primarily rural communities with fewer health care resources.

Because there are larger numbers of high risk mothers in urban areas, they have had priority attention. The Rural Infant Care Program combines the resources of state and local health departments and medical schools to improve prenatal care for expectant mothers who have limited access to adequate health care. The University in Columbia has a \$147,000 one-year grant to administer the program.

Just a Reminder . . .

. . . that we, as physicians, are concerned about our fellow physicians as well as the people we serve. The Missouri State Medical Association created the "Impaired Physicians Committee" to provide help for physicians and to protect the public. This is not a policing or punishing group. Its purpose is to assist physicians in recognizing their need and to direct them to appropriate sources. Call on the "Hot Line" (314-636-5744) and leave your name and number and your call will be returned. Strict confidentiality is maintained. — Arnold S. Block, M.D., Chairman.

New Members

Robert M. Kretzschmar, M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Kretzschmar is a native of Ann Arbor, Mich., received his preliminary education at the University of Michigan and his M.D. degree at the University of Michigan in 1957. He specializes in obstetrics and gynecology.

Padma Krishna, M.D., Wayne Miner Health Center, 825 Euclid, Kansas City 64124, has become a member of Jackson County Medical Society. Dr. Krishna is a native of India, received her preliminary education at Madras University and her M.D. degree at Madurai Medical College in 1964. She specializes in pediatrics.

Carlos Eduardo Moya, M.D., Dept. of Pathology, Methodist Medical Center, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Moya is a native of Colombia, South America, received his preliminary education at National University of Colombia and his M.D. degree at National University of Colombia in 1965. He specializes in pathology.

Frederick D. Muegge, M.D., Medical Towers, 1443 N. Robberson, Springfield 65802, has become a member of Greene County Medical Society. Dr. Muegge is a native of East St. Louis, Ill., received his preliminary education at Wesleyan University and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in internal medicine.

Douglas B. Paone, M.D., 316 Research Medical Office Bldg., 6400 Prospect, Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Paone is a native of Elmhurst, Ill., received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in internal medicine.

Craig A. Parker, M.D., 142 Research Medical Office Bldg., 6400 Prospect, Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Parker is a native of Camp McCoy, Wis., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1977. He specializes in anesthesiology.

Bipin T. Patel, M.D., 3400 Frederick Ave., St. Joseph 64502, has become a member of Buchanan County Medical Society. Dr. Patel is a native of India, received his preliminary education at the University of Baroda and his M.D. degree at the University of Baroda in 1976. He specializes in anesthesiology.

Prakesh B. Patel, M.D., 1321 Village Dr., St. Joseph 64506, has become a member of Buchanan County Medical Society. Dr. Patel is a native of Nairobi, Kenya, received his preliminary education at Jai-Hind College and his M.D. degree at Bombay University in 1972. He specializes in internal medicine and gastroenterology.

Angelo Thomas Pezzella, M.D., Dept. of Thoracic Surgery, University of Missouri Medical Center, Columbia 65212, has become a member of Boone County Medical Society. Dr. Pezzella is a native of Worcester, Mass., received his preliminary education at Holy Cross College and his M.D. degree at St. Louis University in 1971. He specializes in general and cardiovascular surgery.

Sanobar Kadri Ahmed, M.D., St. Joseph State Hospital, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Ahmed is a native of Pakistan, received her preliminary education at Dow Medical College and her M.D. degree at Dow Medical College in 1975. She specializes in psychiatry.

Ronald Joseph Auclair, M.D., 456 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Auclair is a native of Worcester, Mass., received his preliminary education at Assumption College and his M.D. degree at St. Louis University in 1969. He specializes in rheumatology.

James Leon Bowers, D.O., 1301 Buchanan Ave., St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Bowers is a native of Kirksville, received his preliminary education at Northeast Missouri State University and his D.O. degree at Kirksville College of Osteopathic Medicine in 1977. He specializes in family practice.

Charles E. DeFelice, M.D., #14 Doctors Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society.

ety. Dr. DeFelice is a native of Hagerstown, Md., received his preliminary education at the University of Maryland and his M.D. degree at the University of Maryland in 1967. He specializes in cardiovascular diseases.

Leonard L. Desvallons, M.D., 416 N. 7th, St., St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Desvallons is a native of Haiti, received his preliminary education at Saint Marshall College and his M.D. degree at Autonomous University in 1972. He specializes in anesthesiology.

Elliott L. Franks, M.D., 520 Rockhill Medical Building, 6700 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Franks is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Missouri-Kansas City in 1975. He specializes in internal medicine.

Thomas W. Froehlich, M.D., 315 Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Froehlich is a native of Minneapolis, Minn., received his

preliminary education at the University of Texas and his M.D. degree at the University of Texas Southwestern in 1975. He specializes in internal medicine and oncology-hematology.

Jon William Gaffney, M.D., 1201 N. Woodbine, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Gaffney is a native of Chicago, Ill., received his preliminary education at Northwestern University and his M.D. degree at Meharry Medical College in 1971. He specializes in plastic and reconstructive surgery.

George M. Gura, Jr., M.D., 410 Medical Plaza, 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Gura is a native of Hartford, Conn., received his preliminary education at Middlebury College and his M.D. degree at the University of Virginia in 1963. He specializes in cardiovascular diseases and internal medicine.

Jeffrey Robert Johnson, M.D., 211 Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Johnson is a native of Lincoln, Neb., received his

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preliminary education at the University of Arkansas and his M.D. degree at the University of Texas Southwestern in 1974. He specializes in urology.

Mark C. Kasten, M.D., 1617 Lynhurst, Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Kasten is a native of Pittsburgh, Pa., received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1977. He specializes in family practice.

Minerva Morales Rivera, M.D., 308 N. Main, Brookfield 64628, has become a member of Grand River Medical Society. Dr. Rivera is a native of the Philippines, received her preliminary education at Far Eastern University and her M.D. degree at Far Eastern University in 1972. She specializes in internal medicine.

John W. Selph, M.D., St. Francis Hospital, Maryville 64468, has become a member of North-

west Missouri County Medical Society. Dr. Selph is a native of Ocala, Fla., received his preliminary education at Davidson College and his M.D. degree at the University of Florida in 1976. He specializes in radiology.

Thomas M. Sodeman, M.D., Director of Laboratories, Methodist Medical Center, St. Joseph 64501 has become a member of Buchanan County Medical Society. Dr. Sodeman is a native of New Orleans, La., received his preliminary education at William and Mary and his M.D. degree at the University of Virginia in 1966. He specializes in pathology.

Philip W. Taylor, M.D., 1440 Luce, Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Taylor is a native of Cape Girardeau, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at Harvard in 1973. He specializes in internal medicine.

Bernard J. Terrell, M.D., 710 King St., Mt. Vernon 65712, has become a member of Ozarks County Medical Society. Dr. Terrell is a native of Cleveland, Ohio, received his preliminary education at Western Reserve University and his M.D. degree at Ohio State University in 1932. He specializes in pulmonary diseases.

Henry Tyler, M.D., 510 Francis St., St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Tyler is a native of France, received his preliminary education at New York City University and his M.D. degree at the University of Montpellier in 1974. He specializes in hematology and oncology.

John Clarence Vidoloff, M.D., Lester Cox Medical Center, 1423 N. Jefferson, Springfield 65802, has become a member of Greene County

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Medical Society. Dr. Vidoloff is a native of Chicago, Ill., received his preliminary education at Loyola University and his M.D. degree at Loyola University in 1966. He specializes in physical medicine and rehabilitation.

Kishor L. Vyas, M.D., St. Joseph Hospital, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Vyas is a native of Uganda, received his preliminary education at the University of Baroda and his M.D. degree at Baroda Medical College in 1969. He specializes in pathology.

Don R. Whitener, M.D., 401 Keene St., Columbia 65201, has become a member of Boone County Medical Society. Dr. Whitener is a native of Cape Girardeau, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1969. He specializes in internal medicine and pulmonary diseases.

Redwan Youssef, M.D., 103 11th, Suite #11, Chillicothe 64601, has become a member of Grand River Medical Society. Dr. Youssef is a native of Syria, received his preliminary education at Damascus Univeristy and his M.D. degree

at Damascus University in 1972. He specializes in ophthalmology.

New Student Members

St. Louis University

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Arlen D. Hanssen
James Gregg Julin
Lorraine Lee
Marilyn Maxwell
Michael Paul Ridge
Douglas E. Romer
Joann M. Sanders
Kerry K. Swindle

University of Missouri-Columbia

Ersin A. Atay
Robert R. Hausam
David McCollister
Bradley B. McElroy
Deward H. Voss

University of Missouri-Kansas City

Ana Margarita Larocca
John M. Quinn

In Memoriam

Elmer Richman, M.D., 16350 Lydia Hill, Chesterfield 63017; a graduate of Deutsche Universitat Medizinische Fakultat, Praha, 1922; member of St. Louis Metropolitan Medical Society; age 86; died Aug. 7, 1980.

James Edward Keeler, M.D., 425 E. Meyer, Kansas City 64131; a graduate of St. Louis University, 1939; member of Jackson County Medical Society; age 67; died Aug. 27, 1980.

Paul A. Gempel, M.D., 1221 Brasie, Flossmoor, Ill. 60422; a graduate of the University of Pennsylvania, 1922; member of Jackson County Medical Society; age 90; died Sept. 6, 1980.

Gordon F. Wise, M.D., 2850 Southern Hills Blvd., Springfield 65804; a graduate of Harvard Medical School, 1950; member of Greene County Medical Society; age 56; died Sept. 14, 1980.

William T. Newton, M.D., 1218 Glen Vista Pl., St. Louis 63122; a graduate of Yale University, 1950; member of St. Louis Metropolitan Medical Society; age 53; died Sept. 25, 1980.

Charles W. Meinershagen, M.D., 111 Forest Hill, Jefferson City 65101; a graduate of the University of Louisville, 1934; member of Cole County Medical Society; age 72; died Oct. 11, 1980.

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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

Dr. M. Pinson Neal, Columbia, was awarded the Mississippi Valley Medical Society's distinguished service award for 1940 at the annual banquet of the Society on September 26 in Rock Island, Ill. He is professor of pathology at the University of Missouri where he has been since 1922.

The Jasper County Medical Society held its first meeting of the fall season in Joplin on October 8. The new officers are Drs. Roy E. Myers, Joplin, president; R. W. Webster, Carthage, vice-president; Sam A. Grantham, Joplin, secretary; H. D. McGaughey, Joplin, treasurer; and Dr. Irwin T. Craig, Joplin, editor of *The Caduceus*.

The South Central Counties Medical Society met at the Horton Hotel in Willow Springs on September 12. Members present were Drs. A. C. Ames, R. W. Denney, H. G. Frame and R. A. Ryan, Mountain Grove; Garrett Hogg, Cabool; J. A. Fuson, Mansfield; J. R. Mott, Hartville; R. M. Norman, Ava; L. M. Dillman, Houston; and C. F. Callihan, Willow Springs.

Dr. G. D. Royston, St. Louis, was elected president-elect of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons at the annual session of the Society in Excelsior Springs on September 26. He served as vice-president in 1929.

TWENTY-FIVE YEARS AGO

It was announced on September 17 that Oliver Lowry, M.D., had been named dean of the Washington University School of Medicine. He had been professor of pharmacology and head of the department since 1947. He succeeds Carl V. Moore, M.D., who resigned to devote full time to research and teaching.

The 500,000 attendance mark was reached and passed at the 1955 Missouri State Fair in Sedalia on August 20-28. The weather was dry and hot throughout the week. A very popular attraction was the display presented by the Missouri State Medical Association. It showed in true-to-life

manikins the location, size and appearance in three-dimensional form all of the organs of the human body, exclusive of the extremities. By pressing a button, viewers could receive detailed information about each of the organs. The American Medical Association kindly loaned the exhibit to the Pettis County Medical Society.

After 61 years as a practicing physician, Dr. A. R. Timmerman of St. Joseph closed his office on October 1. He expects to spend part of his time with a son in Florida.

An open house was held on September 12 for Dr. and Mrs. E. I. L. Seabaugh of Jackson in honor of their 50th wedding anniversary.

TEN YEARS AGO

The medical staff of Bothwell Memorial Hospital in Sedalia hosted a dinner on October 1 in honor of Dr. A. L. Walter for his 50 years of general medical practice. Active in medical and civic affairs, Dr. Walter has served as president of the Pettis County Medical Society and as chief-of-staff at Bothwell Hospital.

Dr. Robert W. Buben, formerly of Kirksville, and Dr. Dale Burton from the U.S. Air Force are now practicing medicine in Hannibal.

Dr. James Brown, Springfield, originator of Greene County's famous "Singing Doctors," announces that the group has raised more than \$100,000 for loans to deserving medical students via their hilarious performances and records.

A total of 189 physicians passed the Missouri Board of Registration for the Healing Arts licensing examination held in Jefferson City in September. The September examination was the first given in Missouri since the recent Attorney General's opinion that United States citizenship could not be a requirement for the licensing of physicians in the state.

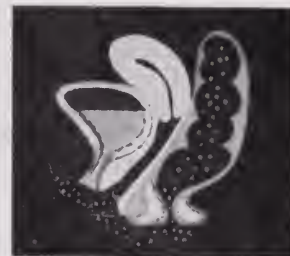
Mr. D. Max Francis, administrator, has announced that the name of the Smithville Community Hospital has been changed to the Spelman Memorial Hospital in honor of the late Arch Spelman, M.D. The change becomes effective on Oct. 1, 1970.

For recurrent attacks of urinary tract infection in women

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Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morgani*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (Federal Register, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).



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Please see reverse side for summary of product information.

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Missouri Medicine

Vol. 77, No. 12

(ISSN 0026-6620)

December, 1980

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References should be cited in numerical order in the text and arranged at the end of the article in the same order in which they are cited. The reference should give name of author, title of article, name of periodical, volume number, initial page number and year. Authors are responsible for reference accuracy.

Illustrations should be glossy prints (black and white) or drawings in India ink on white paper. They should not be mounted and name of author and figure number should be penciled lightly on the backs. Legends should appear on a separate sheet.

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All material other than scientific should be received prior to the first of the month preceding month of publication.

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Missouri Medicine

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NEWS ROUND - UP

December, 1980

MSMA House recommends discontinuing Interim Session



Approximately 175 MSMA delegates attended the 1980 Interim Session held November 1-2 in Joplin.

A resolution calling for the elimination of the Interim Session was adopted by the MSMA House of Delegates at the Interim Session held November 1-2 in Joplin.

It was felt that the Interim Session was originally designed to handle legislative issues affecting the medical profession in Missouri, and during the last few years, there have been few resolutions submitted involving legislative issues. A constitutional change, this recommendation will come before the House at the 1981 Annual Session for final decision.

The delegates also approved a resolution stating that the MSMA will pay the reasonable expenses for the student councilor and the student vice-councilor to attend Council meetings and the Annual Session. MSMA will also pay reasonable expenses of the medical component societies delegates to attend the Annual Session.

A resolution dealing with the payment of expenses for medical students to attend the Annual Session was referred to the Council for further study, budgetary

comments and methods of implementation for report back to the House at the 1981 Annual Session.

Listed below are some of the other Interim Session resolutions and reports which are not discussed in accompanying articles:

Fees of the Board of Registration of Healing Arts — supports statute changes allowing the Board of Registration of Healing Arts to charge reasonable fees for licenses, renewal of licenses, tests and reciprocity processes. (adopted)

Standard Immunization Form — calls for the use of standard immunization forms for children. (adopted)

Independent Nurse Practitioners under CHAMPUS — instructs the MSMA to inform the U.S. Department

Continued on next page

Interim Session (continued)

ment of Defense that regulations allowing "nurse practitioners" to provide direct health care to CHAMPUS beneficiaries would result in a lowering of health care standards of the program. (adopted)

Ad Hoc Committee of the Chronically Mentally Ill — calls for the establishment of an Ad Hoc Committee to review the recommendations of the 1979 AMA workshop on the chronically mentally ill and to develop physician education programs at the state levels. (adopted)

Capital Punishment by Lethal Injection — calls for MSMA members to oppose the enactment of a future law providing for legal execution by physician performed injections of a lethal substance. (tabled)

Child Auto Restraints — supports the American Academy of Pediatrics program encouraging the use of child auto restraints to reduce infant death. (adopted)

PKU-T4 Testing in Newborns — urges that any duly qualified laboratory which meets reasonable standards should be able to perform PKU-T4 testing. (adopted)

Health Policy in Missouri — calls for the development of priorities necessary to formulate, publish and publicize an ongoing health policy in Missouri. (tabled)

Health of School Teachers — instructs the MSMA Council to appoint an ad hoc committee to develop recommended minimum standards for the identification of contagious disease with all school personnel in Missouri. (adopted)

Toxic Waste Disposal — calls for joint meetings of the MSMA Commissions on Public Affairs and Interspecialty Medicine to formulate scientific advice on the problem of toxic waste disposal to be made available to state agencies. The delegates also voted to oppose Proposition 11, the radioactive waste law which failed to pass in the November 4 elections. (adopted)

MSMA honors member of Missouri General Assembly

State Senator Richard M. Webster was honored during the November meeting in Joplin.

Dr. Richard V. Bradley, MSMA President, presented a plaque on behalf of the MSMA to Senator Webster in appreciation for his "dedication and ability in the Missouri General Assembly" and his "continuing efforts to improve medical care for the citizens of Missouri."



Dr. Richard V. Bradley, MSMA president, presents a plaque to Senator Richard M. Webster at the Interim Session.

MSMA takes stand on upcoming legislation

With the 1981 Missouri General Assembly to begin in a few weeks, the MSMA Legislative Committee is studying all medically-related bills which have surfaced to date and will either favor or oppose them as directed by the House of Delegates.

In the Legislative Committee report given at Interim Session, the Committee stated that some of the upcoming issues to receive MSMA support include:

1) **Medicaid Funding** — MSMA will again strive for more equitable funding for physician services under Medicaid.

2) **Definition of Death** — The MSMA position is to recognize brain death as one method of determining death.

3) **Other legislation** which may surface later which would result in better health care for the citizens of Missouri.

The following bills will be opposed by the MSMA in the upcoming session:

1) **Optometry Drug Bill** — This bill would allow optometrists to use topically applied drugs.

2) **Chiropractic** — The MSMA has long opposed the expansion of chiropractic into the area of medicine.

3) **Licensing of Allied Health Personnel** — More than a dozen allied health groups annually seek licensure. However, licensure would result in higher costs and the need for such licensure has not been exhibited.

4) **Medicaid Payments to Nurses** — Although certain forces within the nursing profession are pushing for direct payments to nurses from the state, the MSMA will oppose any intrusion into the practice of medicine.

5) **Laetrile** — This and other "cure-all" bills will again be coming before the Legislature. In each instance, the MSMA presents the most complete medical opinions which can be gathered. However, these are emotional issues and sometimes facts and reason are not highly regarded.

As a result of action taken by the MSMA House of Delegates in Joplin, the MSMA Legislative Committee will pursue legislation on the following issues:

• **Compulsory Rabies Vaccination** — the House adopted this resolution calling for compulsory rabies vaccination of owned dogs, cats and other susceptible pets, a 10-day confinement of animals suspected of having transmitted the disease to humans and the establishment of an effective method of obtaining and recording information on rabies vaccination activity in the state.

• **Missouri Poison Control Network** — the Delegates voted to support legislation relating to the establishment of a statewide poison control network providing physicians in Missouri with the most current methods of treatment for poisoning victims.

Foundation makes changes in loan policies

The Missouri State Medical Foundation has granted 1800 loans to 715 different medical students since its inception in 1960. Today the maximum amount a student may receive each semester is \$1000, for a total of \$2000 per year.

The Foundation, sponsored by the MSMA, has recently implemented the following policy changes:

- During the period that students are in attendance at medical schools, interest shall accrue at 4% per annum.

- Loans will be granted to sophomore, junior and senior students and to those in the last three years of the six year program at UMKC.

- The repayment of loans is to be completed in four years.

- Interest on the unpaid principal will become due after graduation from medical school.

- After graduation and during resident training, the interest rate will accrue at 8% per annum and will continue at this rate until after one year of private practice. Following a year of private practice, the interest will increase to 10%

Besides membership assessments, there are three other sources of Foundation funds for medical students: repayments, contributions and memoriams. Contributions are a significant source of funds and this year the following individuals and groups made generous donations to help Missouri students through medical school. This list includes contributions through November 30, 1980.

Buchanan County Medical Society Auxiliary

Max S. Franklin, M.D.

MSMA Auxiliary

Cole County Medical Society Auxiliary

St. Louis Metropolitan Medical Society
Auxiliary

A. J. Signorelli, M.D.

Mary E. Case, M.D.

Paul R. Whitener, M.D.

Johnson County Medical Society Auxiliary

Boonville Medical Group

Miller's Medical Arts Pharmacy

Long's Drug Store

Foster's Drug Store

Clay County Medical Association Auxiliary

Grand River Medical Society Auxiliary

In Memory of Nancy McCraw

Royal O. Cooper

The Foundation Board also encourages physicians to remember the Foundation in bequests. Donations to the Foundation are tax deductible.

New Legislative leaders to speak at "Key Contact" meeting

The two newly elected Majority Floor Leaders of the Missouri General Assembly will be the featured speakers at the upcoming MSMA Legislative "Key Contact" meeting.

Senator Harold L. Caskey of Butler and Representative Thomas A. Villa of St. Louis will present a Legislative Forecast for the 1981 General Assembly at the January 10, 1981 meeting at the Jefferson City Ramada Inn.

The "Key Contact" meeting is being sponsored by the MSMA to give "Key Contacts" a greater understanding of the legislative process at both the state and federal levels. In addition to having the opportunity to meet the two new leaders in the Missouri General Assembly, AMA lobbyist Dexanne Clohan will provide "key contacts" with some interesting highlights into the upcoming Congress.

The MSMA lobbyists will cover the medically related bills to be introduced in 1981, the MSMA position on these bills and opposing points of view.



Sen. Caskey



Rep. Villa

A mailing on this meeting was sent to "Key Contacts" in early December. If you are interested in becoming a "Key Contact" or are interested in attending the meeting, please contact the MSMA Office, P.O. Box 1028, Jefferson City, MO 65102.

Items of interest to Missouri Physicians

New E.D.S. Federal policy for Medicaid claims

As of January 1, 1981, E.D.S. Federal will no longer make an alteration of any field of the Medicaid claim. All necessary and pertinent information and all fields of the claim form must be completed when the claim is submitted.

In addition, the state will no longer accept photocopies of claims as "tracer claims." If a specific claim has not been adjudicated, a carbon of the original claim or a newly completed claim form must be submitted by the provider.

During the interim period of November 1, 1980 to January 1, 1981, E.D.S. Federal will return claims that are found to be incomplete or showing specific errors. Other claims will be denied on the Remittance Advice with the EOB message codes and will need to be corrected and resubmitted.

MMPAC — supported candidates successful in Nov. elections

Are you aware of the effect that funds donated to the Missouri Medical Political Action Committee can have in an election? This year, MMPAC funds have proved very effective in both the congressional and state legislative races. Many of the candidates supported by MMPAC were successful in their campaigns.

The breakdown in the various races in Missouri shows:

U.S. Congress: 9 supported — 8 won (88%)

Missouri Senate: 12 supported — 12 won (100%)

Missouri House: 77 supported — 66 won (85%)

Dr. Hollweg dies

Kenneth C. Hollweg, Sr, M.D., a past president of the Missouri State Medical Association, died November 21, 1980 in La Cygne, Kansas.

Dr. Hollweg served as MSMA president in 1963-1964. Dr. Hollweg was a member of the Board of Trustees of the Missouri State Medical Foundation. He was also on the Board of Directors of the Missouri Medical Political Action Committee.

Dr. Hollweg was a fellow of the American College of Radiology and the Kansas City Academy of Medicine. He was also a diplomat of the American Board of Radiology and the College of Interamerica Radiologia.

Dr. Sisk is elected

James C. Sisk, M.D., has been elected to the executive committee of the national Blue Cross Association.

Dr. Sisk is one of only two physicians elected to serve on the executive committee at the annual meeting of Blue Shield Plans held recently in San Francisco.

He is chairman of the board of trustees of the St. Louis Blue Shield Plan.

MOMEDICO premiums are tax deductible

The IRS recently ruled that malpractice premiums paid to a physician owned insurance company, such as MOMEDICO, can be tax deductible.

MOMEDICO meets all three of the IRS requirements: no single policy holder owns a controlling interest in the company, the risk of loss is spread among a number of policy holders and the holders cannot be assessed charges beyond the regular premiums.

The IRS stated that payments to a physician owned company covering more than 5,000 physicians will satisfy all three tests.

Family physician panel reviews fund applications

To establish family physician training opportunities in Missouri and to provide physicians in areas of need, recent legislation has created a Panel for Family Physician Training Programs.

The panel, which is appointed by the State Board of Health, is responsible for the review of applications for funds for family physician training programs.

The panel has developed application forms for planning new programs and for the operation or expansion of existing rotating internships or family physician residency programs. The application forms require a statement of the problem, the program objectives and goals, the management of the program and how it is to be evaluated.

Anyone interested in applying for funds under this program, should request an application from Joseph B. Reichart, Missouri Division of Health, P.O. Box 570, Jefferson City, MO 65102. Applications must be submitted by January 1, 1981. Funds will be allocated on a fiscal year basis and funding can only be provided through June 30, 1981 for the current fiscal year.

MSMA Committee on the Impaired Physician

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Alcohol	5%

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Each prolonged action tablet contains

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Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.

HOW SUPPLIED

Bottles of 100 Tablets

Bottles of 500 Tablets

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Codeine Phosphate	65.8 mg
(WARNING - MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyriminamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma, and in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency.

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbance, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions.

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.

Children 6 to 12 years of age: $\frac{1}{2}$ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: $\frac{1}{2}$ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician.

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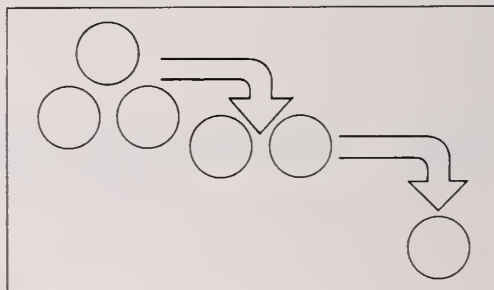
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*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978



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Photo-Comment by James W. Clawson, M.D., Springfield



Why would anyone want to stifle
technological progress?

Editor's Corner

A LESSON IN HUMILITY

I have spent much of my life intimately involved in music. The deeper that involvement has become, the more I have come to stand in awe before the intellects of composers of great music.

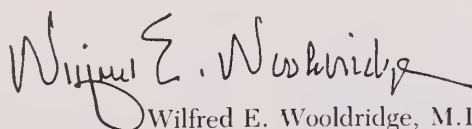
Think, for a moment, of the tremendous inspiration and technical ability of Johann Sebastian Bach (1685-1750). He spent all of his life in minor Lutheran churches and at the whims of minor monarchs. Practically all of his adult years he conducted small choirs in those churches and for them he composed a new cantata *every week*. This was not only a task of incomprehensible magnitude but, consider also, he did this under no spotlight of glory. Indeed, it was not until he was old and failing, that he was recognized as a master of his time. When he died, he was as quickly forgotten and had it not been for Felix Mendelssohn, a hundred years later, we might have no remembrance of Bach today.

Then, Wolfgang Mozart (1756-1791). His life was a brief 35 years, filled with disease, tragedy and penury. Yet, he left the world with an outflow of joyous song, the like of which has never been equaled. Melody as fresh today as when composed. I recall that my friend, Dr. Andrew Hahn, a great student of Mozart, said that if this composer had died at 25 instead of 35 he would still have been one of the world's greatest composers.

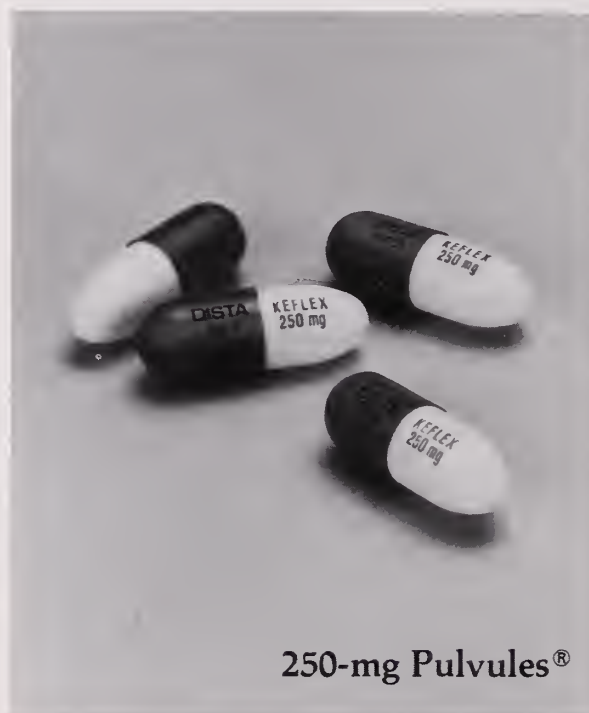
Then, Ludwig van Beethoven (1770-1827). Plagued by increasing deafness (what could be worse for a composer), he made no concessions to his disability. Some of his greatest work was completed when he could hear little, if at all. One of the most soaring of all pieces of music, his choral finale to his great Ninth Symphony, was completed when he could hear nothing. When this was first performed, he stood alongside the conductor. At its completion, it was necessary for the conductor to turn Beethoven around so that he could see the audience on its feet, applauding and cheering. Beethoven had never heard a sound of it. He conceived it in silence.

Then Alexander Borodin (1833-1887), a physician and noted chemist. His musical output was small but inextricably associated with his composer friend, Glazounov. In his spare moments, Borodin composed a symphony, many smaller works and the opera, "Prince Igor." All of these are recognized as inspired and model musical creations which are performed today quite as often as in Borodin's time. But no greater tribute to the musical mind can be paid than to Glazounov, who salvaged the incomplete "Prince Igor" and who, with Rimsky-Korsakov, finished it after Borodin's death. It seems that Borodin had either lost the manuscript of the overture to "Prince Igor," or else had never put it on paper. But Glazounov had heard Borodin play the overture for a group of friends. Months later, when it was found there was no score of the overture, Glazounov resurrected it from memory and "Prince Igor" survived.

We physicians should remain properly humble before intellects such as these.


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JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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DINAH K. PEARSON, CHARLES W. BLACKWELL, M.D.,
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Breast Cancer Screening

A Six-Year Experience

THE BREAST CANCER DETECTION DEMONSTRATION PROJECT (BCDDP) at the Cancer Research Center in Columbia is one of 27 such projects involved in a five-year national program sponsored by the National Cancer Institute and the National American Cancer Society. The facility opened at the Cancer Research Center in June, 1974 and will be in operation through January, 1981, although active screening of participants terminated Oct. 31, 1980.

Ten thousand one hundred and eighty seven (10,187) asymptomatic 35-to-74-year-old women from 105 of 115 Missouri counties were recruited as participants through the use of American Cancer Society volunteers and the news media. Eighty-four hundred were still participating at the conclusion of the five-year study. An additional 7,000 applicants could not be accommodated because of the contractual agreement. Each woman agreed to participate in five years of annual breast cancer screening which consisted of (1) a personal medical interview; (2) breast thermography (infrared photography to elicit mammary vascular patterns); (3) Xeromammography (breast x-ray with the radiographic image on a special blue Xerox paper instead of the usual film; two views: cephalocaudal and mediolateral); and (4) physical examination of the breast by a nurse clinician. Thermography was discontinued at the Columbia BCDDP in August, 1978, pending a comprehensive national reassessment of its future role in breast cancer screening.

Previous MISSOURI MEDICINE reports from this

project have described long-term objectives and techniques of detection,¹ findings in the first 5,000 participants² and the experience of the first three years.³

This article provides an overview of six full years of breast cancer screening at the Missouri BCDDP and announces a continuing screening

Experience at the Breast Cancer Detection Demonstration Project (BCDDP) at the Cancer Research Center in Columbia indicates that it is possible to routinely detect small, potentially lethal breast cancers by means of physical breast examination and Xeromammography. The Xeromammogram has been the most useful method of detection. During the five years of screening, 136 breast cancers were detected in 10,187 asymptomatic 35-to-74-year-old women.

Ms. Pearson is Project Coordinator. Dr. Blackwell is Project Radiologist and Dr. Rodes is Project Director for the BCDDP. At the Cancer Research Center, Dr. Blackwell is Associate Scientist and Dr. Rodes is Administrative Director. Formerly Chief of Detection and Prevention at the Cancer Research Center, Dr. Sullivan is now Medical Director, Midwest Health Plan (HMO) in St. Louis.

This investigation was supported in part by Contract No. NO1-CN-45095 from the National Cancer Institute, DHHS.

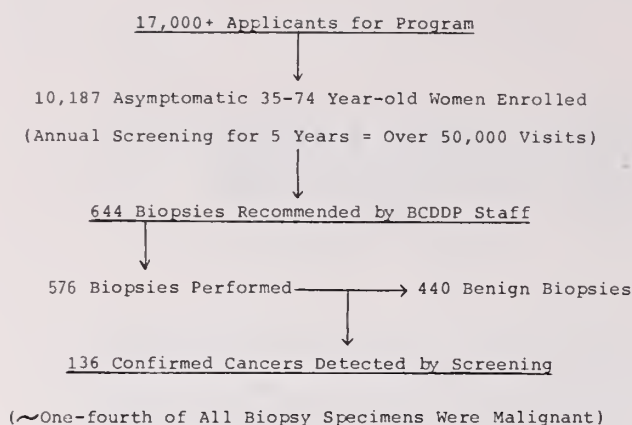


Fig. 1 Summary of breast cancer screening results.

program called the Women's Cancer Control Program of Missouri. During fiscal year 1980, 4,365 women over the age of 35 were examined for cancer of the breast, colon-rectum and uterine cervix. To date, 22 breast cancers, three colon cancers and four cervical cancers have been detected in this group.

OVERVIEW/DISCUSSION

Fig. 1 presents a diagrammatic abstract of the results of more than 50,000 breast cancer screening visits by 10,187 participants between 1974 and 1980. Of 644 biopsies recommended by the BCDDP staff, 576 were accomplished (a 90% compliance rate). Not noted in the diagram are 16 interval cancers (not detected by the screening process). Interval cancers plus detected cancers equal a total of 152 cancers diagnosed in the 10,187 participants during their five years of screening in the BCDDP. Thus, almost all (90%) of the breast cancers which developed in the screening population over the five-year period were detected by the screening process.

Table 1 notes the high number of prevalent breast cancers discovered in the first year of the

TABLE 1
NUMBER OF BREAST CANCERS DISCOVERED DURING EACH YEAR OF THE MISSOURI BCDDP

Year of Screening Visit	Number of Breast Cancers Discovered During That Year
1st Year	59
2nd Year	30
3rd Year	19
4th Year	26
5th Year	18
Total	152

TABLE 2
AGES OF WOMEN AT DIAGNOSIS

% of Population (On Initial Visit)	No.	% of Cancers
12.4	35-39	5
14.9	40-44	6
16.0	45-50	14
16.4	50-54	27
13.3	55-59	25
8.4	60-64	26
5.5	65-69	23
2.4	70-74	20
1.7	75-77	7
Total	152	5

Average age of women on initial visit = 52.4 years.

Average age of cancer case = 59 years.

screening program. About 39% (59/152) of all the breast cancers became apparent in that first year. This is a prevalence rate of six cancers per thousand examinations. Subsequent years yielded *incident* cancers and these numbers are also higher than would be expected.

Table 2 identifies the ages of the women at the time of their diagnosis of breast cancer. The average age at detection was 59 years. Of the 152 breast cancer cases, nine women had breast cancer diagnosed in the opposite breast prior to the initiation of the project; four women experienced bilateral breast cancer during their five years of participation in the project (one had bilateral, simultaneous breast cancers).

Table 3 depicts the detection of 136 breast cancers by physical breast examination and/or Xeromammogram. Seventy-six of the 136 detected breast cancers (56%) were detected by Xeromammography alone, and 117 (86%) of the detected breast cancers were seen on the Xeromammogram regardless of the result of the physical breast examination. This 86% figure is compatible with the reported preliminary national data concerning the high efficacy of mammography as a breast cancer detection modality⁴ and refutes a smaller, much-publicized Canadian study.⁵ Although physical breast examination was positive in 60 cases (44% of the detected breast cancers), it was the *sole* detection modality (Xeromammograms negative) in only 19 cases (14% of the detected breast cancers).

Tumor size and axillary lymph node involvement are important prognostic factors in breast cancer.^{6, 7} One hundred and five (105) cases (77% of the detected cancers) were found to have negative axillary lymph nodes (Note: in the absence of axillary dissection, cancers less than one centi-

TABLE 3
DETECTION OF 131 BREAST CANCERS*

No. of Breast Cancers Detected	Modality	%
76†	Xeromammogram (negative physical breast examination)	56
41†	Xeromammogram and physical breast examination	30
19	Physical breast examination, alone	14
136 Total		100

* 10,000 Asymptomatic women were screened annually over a period of five years.

† 117 Breast cancers (86% of the total) were seen on xeromammogram.

meter in size were assumed to be localized to the breast tissue — Stage I). More pertinent is the fact that of the 76 breast cancers detected by *Xeromammography* alone, 89% had negative axillary lymph nodes. Sixty-three percent (63%) of the cases detected by physical examination had positive lymph nodes.

Histologically, the 136 detected breast cancers can be divided into two main groups: infiltrating ductal (83% of the total) and in situ (17%). The infiltrating character of cancerous lesions stands as circumstantial evidence against the concept that many small detected breast cancers may represent biologically inert histologic curiosities.⁵

Table 4 delineates the surgical procedure chosen by Missouri surgeons after discussion with the BCDDP participants afflicted with breast cancer. The small size of many of the detected lesions seems to have been an influential factor in the selection of the surgical management.

CONCLUSION

Breast cancer screening at the Missouri BCDDP seems to be consonant with the World Health Organization's principles of screening.⁹ It appears that it is possible to routinely detect small, potentially lethal breast cancers by means of physical breast examination and *Xeromammography*. A significant survival benefit can be expected. The *Xeromammogram* was definitely the predominant modality in this accomplishment at the Cancer Research Center in Columbia.

What we did not do:

1. We were not able to see all of the women who wished to participate. We hope to expand the program (the Women's Cancer Control Program)

TABLE 4
SURGICAL PROCEDURE

	Number of Each Operation
Radical mastectomy	74
Modified radical mastectomy	63
Simple mastectomy	5
Excisional Biopsy	10
Total	152

to accommodate more women.

2. We have not proved yet that the detection of minimal breast cancer increases survival. Long-term follow-up (five to 20 yrs.) of participants will give a basis for comparison of screened and unscreened groups.

3. We did not detect all of the breast cancers that occurred. We hope that increasing expertise and improved technology will permit early detection of more than the 90% of the cancers detected in this program.

What we did:

1. We presented the pathologists in Missouri with tumors more difficult to interpret than those they had previously seen.

2. We presented surgeons with decisions regarding the treatment of breast cancer that were never before required. We changed surgical practices.

3. We have given many Missouri women options for treatment that were heretofore unavailable to them.

4. We have learned that large scale screening for breast cancer is logistically feasible.

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Carcinoma of the Pancreas

CANCER OF THE PANCREAS is more common than generally is appreciated. From being a relatively infrequent tumor in the early years of this century, it has risen to rank fourth among the causes of cancer deaths.¹ In the United States, 18,000 people die yearly of this neoplasm. Only cancers of the lung, breast and colorectum kill more people.

Malignant pancreatic tumors are adenocarcinomas that are exocrine in origin 85% of the time.² The remainder arise from the islets of Langerhans or from connective tissues. Symptoms are rare in the early stages, making the clinical diagnosis of carcinoma of the pancreas notoriously difficult.

The most common symptoms are pain, jaundice and weight loss. These are generally late manifestations of the disease and are indications of probable nonresectability.³ The type of pain is

The incidence of carcinoma of the pancreas is rising in the American population. Deaths from this neoplasm number 18,000 yearly. Symptoms occur late in the disease when metastatic or regional spread has occurred. Radical surgery offers the best hope and cure. However, the incidence of local recurrence may be as high as 73% after surgery. The authors describe their experimental protocol whereby precision high-dose radiotherapy is compared to interstitial implantation of the pancreas plus precision high-dose radiotherapy. It is hoped that staging procedures combined with advanced radiotherapeutic techniques will result in long-term survival in this dread disease.

Dr. Doss is Acting Director, Dr. Memula is Staff Radiation Therapist and Dr. Kraybill is Associate Director and Acting Chief of Surgery at Ellis Fischel State Cancer Hospital. Drs. Doss and Memula are assistant scientists and Dr. Kraybill is Associate Scientist at the Cancer Research Center.

This investigation was supported in part by Grants No. CA 17946 and No. CA 22486 from the National Cancer Institute, DHHS.

typical and has been analyzed in a number of studies.^{2, 4} Fifteen percent to 30% of patients with pancreatic carcinoma present with back pain which is constant in nature and lumbar in location.² This pain is associated with, or progresses to include, abdominal pain. The abdominal pain also is progressive in nature, is worse on lying down (therefore, worse at night) and is aggravated by food intake. Carcinomas of the head of the pancreas have a tendency to cause abdominal pain on the right side while those of the body and tail are associated with pain radiating to the left side. Pain will be present at some time in the course of the disease in at least 70% of the patients.^{5, 6}

Jaundice as a chief symptom is much more common. Up to 90% of the patients have jaundice when the tumor arises in the head of the pancreas. In patients with carcinoma in the body or tail of the pancreas, the incidence of jaundice at presentation is around 5%. However, jaundice is often a terminal phenomenon in these patients because of metastatic spread to the liver.² Jaundice is usually accompanied by pain and is progressive until relieved by surgery. Weight loss, although least anatomically specific of the three major symptoms, is the most common.

Although these late symptoms of pancreatic carcinoma often necessitate surgical intervention, tumors are advanced and unresectable in 80% of the cases. Even when radical surgery is feasible, the incidence of local recurrence may be as high as 73% and the prospect for five-year survival remains at less than 5%.⁷

Conventional radiotherapy also has been ineffective in producing cures and, until recently, was used only to relieve pain.⁶ Twenty-six years of radiotherapeutic experience at Memorial Hospital for Cancer and Allied Disease (New York) has aided our understanding of the radioresponsiveness of pancreatic cancer.⁶ The assumption that adenocarcinomas in general and, in particular, those of the gastrointestinal tract, are radioresistant has been discounted by the observation of a dose-response relationship in breast, uterine and prostatic cancer.⁷

Until recently, it had seemed as if pancreatic

TABLE 1
CANCER OF THE PANCREAS UNRESECTABLE AT LAPAROTOMY (MEMORIAL HOSPITAL STUDY)^a

	Postoperative Radiation, Bypass	Permanent Interstitial Implant	Bypass Only	No Treatment
Number of Patients	29	19	48	22
Percentage dying within 30 days after laparotomy	10	0	23	41
Percentage obtaining relief of pain	62	80	50	0
Percentage obtaining relief of jaundice	57	60	77	0
Number of patients with postoperative fistulas	1	1	1	1

tumors were radioresistant because only a low dose could be delivered to this organ before the critical tolerance of surrounding structures was reached.⁵ The therapeutic ratio for pancreatic carcinomas is the direct opposite of that which is desirable: a rather slow-growing adenocarcinoma situated anatomically close to the rapidly proliferating, highly radiosensitive epithelium of the small bowel and kidney. Fortner *et al* resolved this therapeutic dilemma by utilizing slowly irradiating iodine-125 seeds implanted directly into a tumor at the time of the bypass procedure.⁸ Thus, the release of radiation was timed to the slow cell kinetics of the tumor and fractionated over such an interval that high local dosages were achieved while only minimal irradiation of other sensitive organs occurred. Immediate benefits of this approach included relief of pain in 80% and of jaundice in 60% of their patients (Table 1).⁸

Survival benefits also were obtained. Ten percent of the patients who had exploration and radiation therapy were alive at the end of one year compared to a median survival of 2.2 months in those patients who had exploratory laparotomy only (Fig. 1).⁸ All patients having only exploratory laparotomy died within six months. Tumor regression was evaluated in the patients treated with the iodine-125 implants by periodic radiographs. Regression of pancreatic carcinoma was slow, similar to that of adenocarcinoma at other sites. The average tumor volume reduction was around 70% at 120 days after implantation.⁶ Postoperative complications, both early and late, occurred in 11% of the patients (Table 2).

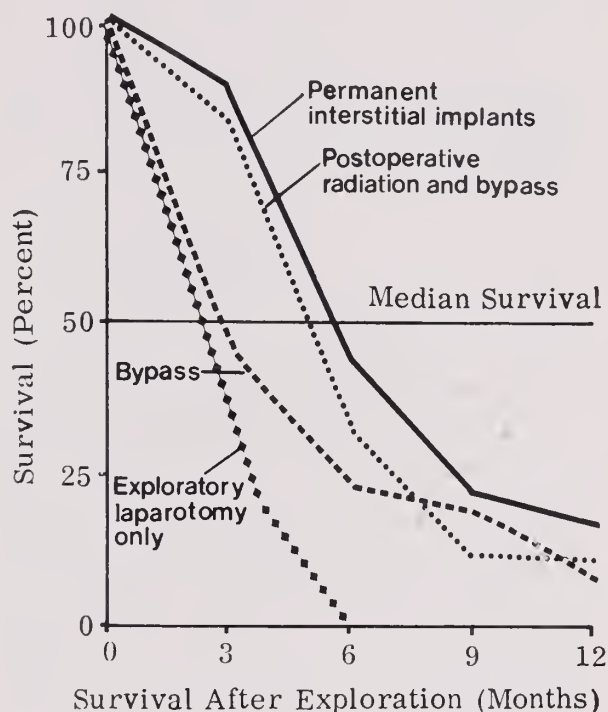


Fig. 1 Post-exploration survival data from Memorial Hospital (New York) shows the superiority of combined radiation therapy and surgery in the management of pancreatic carcinoma. (Reprinted from Fortner, J. G., Dangio, G. J., Hilaris, B. S., Arthur, K., Murphy, J. M. and Fischer, H. J.: Iodine-125 Implantation for Unresectable Cancer of the Pancreas. *Postgrad. Med.* 47:226, 1970.)

TABLE 2
POSTOPERATIVE COMPLICATIONS IN PANCREATIC IMPLANTS*

Early	No.	%	Late	No.	%
Peritonitis	1	3.0	Gastric bleeding	4	10.0
Ileus	2	5.0	Gastric fistula and death	2	5.0
Subdiaphragmatic abscess	1	3.0			

* 38 patients.

TABLE 3
THE PROPOSED SCHEMA FOR THE
RANDOMIZED THERAPY OF CARCINOMA OF THE
PANCREAS (ELLIS FISCHEL STATE CANCER
HOSPITAL AND THE CANCER RESEARCH
CENTER)

Staging Procedure	Bypass Procedure
<i>Surgery</i>	
1. Determine extent of local tumor	1. Biliary bypass or
2. Determine node involvement or distant metastases	2. Gastric bypass or
	3. Both of the above
<i>Randomization</i>	
PHD Alone	PHD Plus I-125 Implant
Photon/Electron	Photon/Electron
6400 cGy in 6½-7½ weeks at 180 to 200 cGy per fraction	4600 cGy in 5½ to 6 weeks at 170-180 cGy per fraction plus Iodine-125 implant to deliver 16,000 cGy over 6 half-lives of I-125

Using precision, high-dose, external beam treatment as an alternative method of radiotherapy has been recommended by Dobelbower *et al.*⁵ With the combination of high energy photons and electrons, it is possible to deliver tumoricidal doses to cancer situated deep in the upper abdomen.⁹ A technique for precision high dose therapy has been developed at the Thomas Jefferson University (Philadelphia) using opposed lateral 45 meV photon beams and an anterior mixed beam (45 meV photons and 20 meV electrons).⁵

Benefit from such techniques can only be realized if careful localizations of the tumor is obtained. Surgical exploration and the routine use of ultrasound or CT scanning make possible meticulous dose planning and help to avoid inclusion of significant volumes of kidney and bowel in the radiation field. Some investigators have found CT scanning to be more sensitive than ultrasonography, while others report the opposite.¹⁰ At present, ultrasound is more cost-effective.¹¹ If ultrasound locates a pancreatic mass, a CT scan is unlikely to provide additional information. On the other hand, if ultrasound gives equivocal results, CT scanning may provide useful information. Either technique may demonstrate lymphatic or liver metastases.

Dobelbower *et al* used CT and ultrasound to develop precision high-dose therapy schedules in 19 patients.⁵ Four of these patients are alive with survival times (calculated from date of diagnosis) of 19 months to five years. In their three-year

study, the median survival was 12 months, with 53% surviving one year. Precision high dose radiotherapy was tolerated well in all cases.⁵

Precision high-dose radiotherapy (PHD) and iodine-125 interstitial implantation of the pancreas are techniques that are not yet universally available. Computerized radiotherapy planning, CT scanning and the multi-specialty approach to cancer is typically available only in large oncology centers. The Ellis Fischel State Cancer Hospital and the Cancer Research Center presently offer computerized planning and iodine-125 pancreas implants. In the near future, we will embark on an experimental protocol combining both PHD and interstitial iodine implantation in carcinoma of the pancreas. The schema for the protocol is shown in Table 3.

Detailed surgical staging and preimplant bypass procedures will be necessary before patients are entered into the study.^{12, 13} It is likewise important to detect surgically those patients who already have metastases and place them on therapy that is not purely regional. Our oncology colleagues have developed chemotherapeutic regimens for patients who present with distant metastases.¹⁴

At present, almost all patients with pancreatic carcinoma receive multi-modality therapy during the course of their disease. Advances in the technology of diagnosis, combined with more aggressive treatment of localized tumor, can result in increased survival and perhaps even cures of this common disease.

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Colposcopy in the Diagnosis and Management of Cervical Neoplasia

DURING THE LAST DECADE, colposcopy has gained widespread acceptance in the United States. Many articles have been published during the past few years showing the importance of this procedure in the evaluation of the patient with abnormal cervical cytology. Comparative studies show that it is possible to pinpoint the area of abnormal epithelium by colposcopic examination.¹⁻³ Because of the increasing expertise in evaluating lesions of the cervix for directed biopsies, the number of diagnostic conizations has been remarkably reduced.⁴⁻⁵

The purpose of this report is to present our experience during the first four years in the use of the colposcope for the diagnosis of intraepithelial neoplasia. The management and follow-up of the patients are described also.

MATERIALS AND METHODS

Between January, 1976 and December, 1979, colposcopic examinations were performed on 343 patients. These patients had been referred to the outpatient dysplasia clinic because of either at least one and usually two or more abnormal Papanicolaou smears or because of a gross lesion on the cervix. Like the rest of the patients at the Ellis Fischel State Cancer Hospital, these patients came from different parts of the state.

Each of the colposcopic examinations included a repeat Pap smear, the application of 4% acetic acid to the cervix, and the use of a Leisegang colposcope with a Leica camera. The method of colposcopic examination was similar to methods described elsewhere.⁶⁻⁷ Whenever possible, the findings were supported by color colpophotography.

The colposcopic examination was considered satisfactory when the entire transformation zone and the lesion were seen. It was considered unsatisfactory when the T-zone or the abnormal area extended into the endocervical canal, in which case an endocervical curettage (ECC) was performed when feasible or the patient was admitted to the hospital for a conization. The colposcopic

findings were graded as mild, moderate or severe dysplasia, carcinoma in situ and invasive carcinoma. Multiple directed biopsies were done of the areas showing the most abnormal changes.

Patients with mild to moderate dysplasia or focal severe dysplasia were generally treated with cryosurgery. Those with extensive severe dysplasia or carcinoma in situ had conization or hysterectomy or both. Several patients with small focal carcinomas in situ were treated with cryosurgery and followed up closely with cytology and colposcopic examinations. Patients with invasive carcinoma generally had radiation therapy.

The follow-up examinations of patients who had mild-to-moderate dysplasia treated with cryosurgery included repeat cytology and colposcopic examination three months after the cryosurgery and every six months thereafter until the end of the second year. After the first two years, the patients were followed up only with cytology every six months. Patients with severe dysplasia and carcinoma in situ who had been treated with cryosurgery were observed with cytology and colposcopic examinations every three months for two years and then every six

Colposcopic examinations were performed in 343 patients, 189 of whom also had colposcopically-directed biopsies. Of the latter, only 21 subsequently underwent diagnostic conization. This study suggests that the use of colposcopy with directed biopsy can reduce the number of conizations without compromising the accuracy of diagnosis in neoplasia of the cervix.

Dr. Montano is director of the Department of Outpatient Clinics and in charge of the dysplasia clinic at Ellis Fischel State Cancer Hospital. Mrs. Crenshaw is the nurse colposcopist in the dysplasia clinic.

This investigation was supported in part by Grant No. CA 17946 from the National Cancer Institute, DHHS.

months until year five. Thereafter, cytology was repeated only every year. Patients who received conizations had repeat cytologies three months after operation and then every six months for two years and yearly thereafter. Those patients who had hysterectomy as treatment for severe dysplasia or carcinoma in situ were followed up with Pap smears of the vagina every six months during the first year and then at yearly intervals.

RESULTS

Of the 343 patients examined, no abnormal colposcopic findings were noted in 106 patients (30%). The examination was considered unsatisfactory in 39 patients (11%), cervicitis was found in 11, cervical polyps in 11 and condyloma acuminata in two. Of the remaining 174 patients (51%), colposcopic examination revealed mild-to-moderate dysplasia in 78 and lesions ranging from severe dysplasia to invasive carcinoma in 96 patients.

Of the 343 patients, 189 had colposcopically-directed biopsies. In these 189 patients, the biopsies showed that 18 had mild dysplasia, 43 had moderate dysplasia, 28 had severe dysplasia, 42 had carcinoma in situ, 31 had invasive carcinoma, 23 had normal histology, two had condyloma acuminata, and two had benign polyps. Of the 189 who had biopsies, 21 subsequently had conization. The histologic results of the directed biopsy and of the conization were the same except for one patient with carcinoma in situ which, in the conization specimen, showed microinvasion and two patients with severe dysplasia which showed carcinoma in situ in the conization specimen.

Of 61 patients with the histologic diagnosis of mild to moderate dysplasia, a diagnostic conization was done in seven patients and the remaining patients needed no further evaluation. Cryosurgery was recommended as the treatment. Results of biopsies of lesions in 70 patients showed histologically severe dysplasia to carcinoma in situ. A diagnostic conization was deemed necessary in 14 of these patients. Twenty-nine patients were treated surgically (hysterectomy) without further evaluation and the rest were treated by cryosurgery, including five patients with carcinoma in situ.

All the patients who were treated with cryosurgery, conization or hysterectomy were followed up as outlined before. Any patient who had abnormal cytology on two occasions within the first six to 12 months was considered as having persistent disease and was treated accordingly.

COMMENTS

Various authors indicate that a combination of cytology and colposcopy with colposcopically-directed biopsies has improved the detection of cervical neoplasia. Colposcopy does not, in any way, replace cytology.⁸⁻⁹ Each compliments the other.

This study points out the value of colposcopy in determining the degree and the site of preclinical cervical neoplasia that has been suggested by abnormal cytology. In the past, the traditional method of evaluating patients with abnormal Papanicolaou smear was with cold-knife conization. This procedure is not a benign one and complications that are not uncommon include bleeding, infection, perforation of the uterus and stenosis of the cervix.¹⁰⁻¹¹ The combination of cytology and colposcopy offers a practical means for evaluating these patients on an outpatient basis.¹²

Of the 189 patients who had colposcopically-directed biopsies, only 21 patients (11%) were subjected to conization. Without colposcopy, it is estimated that a great majority of these patients would have been subjected to conization and all the inherent complications associated with this procedure. When one takes into account the avoidance of conization and its complications as well as the expense of hospitalization, the impact is significant. Therefore, without compromising the diagnostic accuracy in neoplasia of the cervix, unnecessary diagnostic conization can be reduced by the use of colposcopy in defining the most suspicious area for directed biopsy.

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Perineal Recurrence of Rectal Adenocarcinoma

A Clinical Pathological Study

COLORECTAL CARCINOMA is the most common visceral malignancy in the United States, afflicting more than 100,000 new patients per year. The magnitude of this problem is compounded by the high incidence of treatment failure that approaches 50%. The incidence of perineal recurrence of rectal carcinoma treated by abdominoperineal resection has varied between 8.5%¹ and 22%² and is uniformly associated with poor prognosis in spite of clinically absent massive pelvic recurrence or distant metastases. Furthermore, aggressive treatment of the recurrence has been disappointing because of an inability to obtain a significant disease-free survival.³

This evidence prompted us to review the experience of Ellis Fischel State Cancer Hospital (EFSCCH) to determine what prognostic factors were common to patients demonstrating perineal recurrence as the initial evidence of treatment failure and what effect the presence of seemingly localized recurrent cancer had on the eventual survival.

MATERIALS AND METHODS

The charts of 489 patients having abdominoperineal resection at EFSCCH between 1951 and 1974 were reviewed. The follow-up was complete in all cases. A group of 79 patients developed perineal recurrence for an incidence of 16%. A subgroup of 21 patients were found to have recurrence that clinically was thought to be confined to the perineal tissues at the time of detection.

A study was undertaken of the clinical features and gross and microscopic histopathological data. From the latter, the following parameters were reviewed: tumor size, degree of circumferential involvement, location and proximity to the anal mucocutaneous junction, integrity of the specimen, nodal involvement, differentiation and margins of the tumor as well as perivascular, perineu-

ral, and lymphatic tumor permeation.

There were 12 female and nine male patients. The average age at diagnosis of the recurrence was 51 years and ranged from 49 to 81. The average tumor size was 5.3 cm x 4.8 cm in greatest dimensions; the largest measured 10 cm x 7 cm and the smallest, 2.5 cm x 1 cm. The degree of circumferential involvement of the rectum was complete in nine patients. Three quarters of the circumference was invaded in six patients and one half of the circumference of the rectum in six patients. The average distance between the lowest tumor margin and the anal mucocutaneous junction was 3.4 cm (Fig. 1).

Eleven of 21 resected rectums were found by gross inspection to have been perforated during surgical manipulation. There were 11 Dukes' B lesions and ten Dukes' C lesions. Of the 11 lesions without lymph node metastases, eight were found to have been surgically perforated. The number of nodes found in the resected specimen averaged 23. Patients with nodal metastases had an average of five positive nodes. Sixteen tumors were poorly differentiated and five were mid-differentiated adenocarcinomas. There were no well differenti-

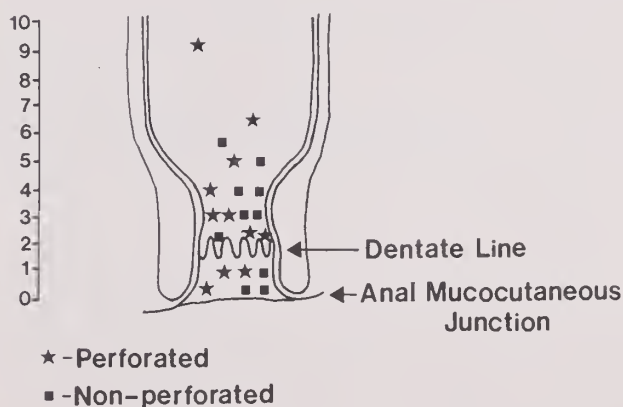


Fig. 1 Location of 21 cases of rectal carcinoma.

This is a study of a selected group of patients with adenocarcinoma recurrence localized to the perineum after abdominoperineal resection of the rectum. It reveals that their uniformly poor prognosis was associated with clinical and histological parameters known to adversely affect survival. It is suggested that in patients with multiple grave prognostic indicators, perineal recurrence is a multiple manifestation of disseminated disease. Although not statistically significant, the data suggest that aggressive treatment of perineal recurrence may improve survival.

Dr. Lopez is Staff Surgeon and Dr. Perez-Mesa is Chief Pathologist, Ellis Fischel State Cancer Hospital. Dr. Lopez also is Assistant Scientist and Dr. Perez-Mesa is Senior Scientist, Cancer Research Center, Formerly Director, Department of Surgery at the Hospital and Senior Scientist at the Research Center, Dr. Johnston is now in the private practice of surgical oncology in Nashville, Tenn.

This investigation was supported in part by Grant No. CA 17946 from the National Cancer Institute, DHHS.

ated or undifferentiated tumors in this group. It is of interest that in 20 of 21 patients, indicators of local aggressiveness were present and included infiltrating margins, perineural and perivascular invasion, and infiltration of the perirectal adipose tissue. In one patient, these indicators of poor prognosis were not present. This patient had the longest survival (50 months).

There were no five-year survivors in this group. Perineal recurrence was detected at an average of 15 months after abdominoperineal resection. The longest disease-free interval was 50 months and the shortest was three months. After detection of perineal recurrence, in all patients distant metastases became clinically evident at an average of 7.6 months later and ranged between one and 26 months. The overall two-year survival was 75% which decreased to 50% at three years. Twelve patients received radiotherapy treatments for perineal recurrence and two were managed surgically. The average survival of the treated group was 41 months in contrast to 17 months for the seven patients whose perineal recurrence received no other treatment.

Fifteen of 21 tumors were within 4 cm of the anal mucocutaneous junction. Of these, seven were within 1 cm. The majority of tumors comprised in this group were large and with a prominently endophytic component. The size of the tumor in relation to survival has been a subject of controversy. Although McSherry and associates⁴ and Rankin and Olson⁵ found that larger tumors adversely affect survival, Spratt and Spjut⁶ found no correlation in most of the available data indicating that tumor size is related to prognosis. The degree of intramural growth appears to parallel prognosis.

DISCUSSION

In our study, the proportion of patients who developed perineal recurrences after abdominoperineal resection is comparable to the experience of other series.⁷ Some investigators have shown that the poorest results occur with low lying lesions.^{2, 3, 7, 8} It is significant that 15 of 21 tumors were within 4 cm of the mucocutaneous junction and seven were within 1 cm. With the exception of one case, all tumors were locally aggressive, including endophytic type of growth with infiltrative margins extending into the perirectal fat. They were predominantly poorly differentiated with perineural and perivascular infiltration. Eleven of the 21 resected rectums were found by gross inspection to have been perforated during surgical manipulation. A recent review of this hospital experience with perforated specimens due to surgical manipulation suggests that prognosis is adversely affected.⁹

In this series, the presence of positive lymph nodes did not appear to affect survival, although this is not statistically significant. Although there were no five-year survivors, patients whose recurrences were treated either by resection or radiotherapy alone or in combination lived longer than those patients who were not so treated. Perineal recurrence represents in our cases, as in other studies,¹⁰ the harbinger of further dissemination since eventually all patients died of distant metastases.

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The Ninth Beatitude

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President's Message

Quo Vadis Plagiarized

How will recent political changes in our country alter the activities of the medical community, the patients and the ability to deliver cost effective health and sickness care?

No easy answer can exist. Generalities can be studied in the best possible focus to permit at least an educated guess. The most liberal forces of government have recently been advertising that they are on an increased degree of probation. At the same time, the more conservative sources have had but partial relief of their probation. No one group has been handed a mandate in any area. No apparent change in the size of bureaucracy would appear to be eminent. Misconduct in high office reminds the population of the frailties of the human mechanism. Political aspirations continue to honor the fact of compromise and election above that of conviction, confrontation and possible extrication. Deficit spending continues to weaken the economic fiber and the trade position of our country. A great deal of pessimism continues to fill the American scene.

That same American scene is not now, nor has it ever been, without tremendous potential hope. Teachers continue to train their students to excel. Search and research are disciplined by the dedication to improve, or discover, a most efficient product or mechanism. Empathy continues to flow by human law from those who have to those who truly need.

The productive citizen of our country is today more aware of the fact that our total supplies are not without limit. Some 60% of our national tax income is being spent on various forms of paternal giving, leaving 40% for all other functions of government.

Who is going to keep supplying funds to nurture such a deficit program? It is time for each individual to pay heed to often repeated statements relating to contribution rather than to reception of any form of dole. In return for a variable degree of personal indenture or servitude, medicine and medical discipline is well-equipped to provide cost efficient care in a setting of improved personal patient responsibility and attention. Medicine has historical background and ability to make proper use of peer review, quality control, long range planning, valid statistical analysis and, perhaps most important, avoiding red tape in the treatment area. Medicine has been doing these tasks for many years only to find that large bureaucracy claims to invent or discover all of them. It is possible that medicine's problem is that these activities are taken as a matter of course and not as an opportunity to advertise the positive or sensational testimonial.

To answer the introductory question, medicine is and has been doing an excellent job all along. Medicine should be modestly proud of its achievements. Medicine should also take every opportunity to stand up for our patients and profession in confrontation with those whose stands of detraction are in obvious error.



Richard V. Bradley, M.D.

Imagine... ...if there weren't an American Medical Association



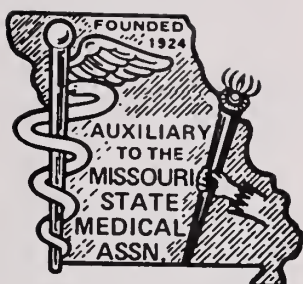
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The above programs actively carried out by auxiliary members can help make Christmas and every day happier for many in Missouri. May these be our gifts to our communities this holiday season.

LETTERS to the Editor

Dear Dr. Wooldridge:

The review by D. P. Misra *et al* on Legionnaire's Disease (Vol. 77, No. 10, October, 1980, pp. 607-613) brought back memories from my days as a pathology resident at the University of Missouri-Columbia. Though not mentioned in the review (and, of course, there is no particular reason for mentioning this), the involvement of one of our post-sophomore fellows in the first diagnosed case of Legionnaire's Disease, labelled as Case No. 2, deserves some comment. Dr. Graham Parker was a post-sophomore medical student rotating in pathology at the time the patient labelled as Case No. 2 died. As a part of his rotation, he performed the postmortem examination on this gentleman under my supervision. Though all who were involved in this case suspected Legionnaire's Disease as the cause of death, the University Laboratory did not have facilities available for making the appropriate diagnosis at that time. It was due to Graham's persistence in heading our efforts at developing a fluorescent antibody staining procedure that the laboratory diagnosis was first made. This diagnosis was subsequently confirmed by

the CDC in Atlanta, as mentioned in the article.

The purpose of this letter is not to express sour grapes on Graham's efforts not being mentioned. My sole intention is to compliment those unnamed people who contribute so much to our medical literature. Without Dr. Parker's persistent efforts, the diagnosis of this gentleman's pneumonia would certainly have been delayed, if not entirely missed. In addition, I think that Dr. Parker's activities in making this diagnosis serve as a just reward for those individuals in the Department of Pathology at the University of Missouri-Columbia who have pursued the post-sophomore fellowship program for so many years.

I hope you can print this letter so that Dr. Parker and the many individual physicians of the Department of Pathology at the University of Missouri-Columbia can receive recognition, both for facilitating the recognition of the first diagnosed case of Legionnaire's Disease in Boone County and for their pursuit of the post-sophomore fellowship program in Pathology.

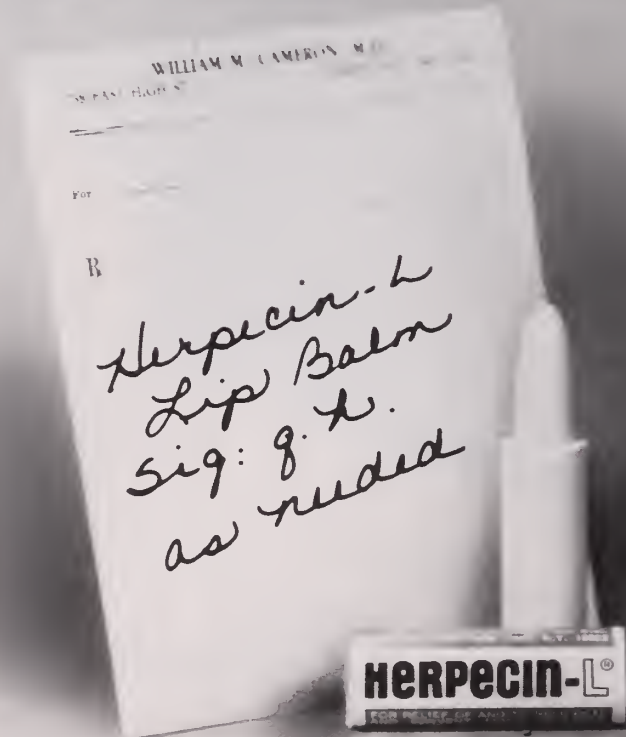
Sincerely yours,

L. K. Arnold, M.D.

Pathologist

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in Brief

A summary of AMA, medical & health news

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THE AMA BOARD OF TRUSTEES, at its meeting last week, approved a 1981 fiscal year budget based on expected revenue of \$69,769,000 and expected expenses of \$69,314,000. Executive Vice-President James H. Sammons, M.D., pointed out that \$5.5 million was added to expenditures to account for inflation. "These dollars are in the budget," he said, "but they don't purchase a single additional service." The anticipated favorable balance of \$455,000 could be wiped out by any unforeseen event or by a rate of inflation higher than 9%, he said. Spending during the fiscal year ending Nov. 30, 1981, will be spread among the six missions of the AMA Plan as follows: Scientific Policy and Information, \$25,244,000; Assure the Quality of Medical Care, \$11,713,000; Represent the Medical Profession, \$10,968,000; Strengthen Organized Medicine, \$7,004,000; Socioeconomic Policy and Information, \$5,393,000; and AMA as an Organization, \$7,472,000.

"PHYSICIAN FEES UNDER MEDICARE: How They Are Established" is an AMA pamphlet prepared by the Council on Medical Service to inform physicians on how Medicare establishes fee profiles and levels of reimbursement. It is based on information contained in the *Medicare Carrier's Manual*, issued by HHS. Single complimentary copies of the AMA pamphlet (MP-1) are available from the Department of Health Care Delivery Systems, AMA Headquarters. For bulk orders contact Dewitt Miner, (312) 751-6395.

"TRYING IS WINNING: It Starts With You" is the theme for the 1981 AMA National Leadership Conference on February 12-14 at the Downtown Chicago Marriott Hotel. Leading political journalists Martin Agronsky, Hugh Sidey and James Kilpatrick will give an overview of the 1980 elections and political predictions for the 80s. Ted Cooper, M.D., executive vice-president of the Upjohn Co. and former assistant secretary of HHS, will discuss the role of medicine in public policy. A new aspect of the 1981 NLC is the rescheduling of the optional seminars. Instead of

preceding the conference as in the past, optional seminars on practice management, negotiations, and mass media will be held on Sunday, February 15, following the conference. For more information contact Linda Hudson, AMA Headquarters, (312) 751-6716.

THE AMA WILL CONTINUE its fight to overturn the Federal Trade Commission's 1979 ruling against the Association on physician advertising and contract practice. A panel of the U. S. Court of Appeals last week upheld the FTC order in a two-to-one decision. "We shall continue, through whatever channels are appropriate, to work to overturn this decision so that the medical profession can continue to serve the public by establishing ethical standards for its members," said AMA EVP James H. Sammons, M.D. "Professionalism itself is at stake." Dr. Sammons pointed out that the House of Delegates, at its 1980 Annual Meeting, adopted a revised set of the *Principles of Medical Ethics* that clearly calls for the sharing of information with patients, colleagues and the public. "It is unfortunate," he added, "that the FTC refused to forward (to the court) documents that would have corrected the record and shown beyond a doubt that the Association's *Principles of Medical Ethics* do not proscribe advertising."

STATE, METROPOLITAN, COUNTY AND NATIONAL medical specialty societies are invited to cosponsor introductory seminars for physician negotiators. The AMA will arrange for faculty, assume their travel and living expenses on a set-fee basis, and provide the educational materials for the two-day program. The cosponsoring society is responsible for providing the meeting site and rooms, for planning and promoting the program, for selecting participants, for reserving hotel rooms for the faculty and for such items as luncheons and audiovisual equipment. The program includes negotiation tactics and exercises and case problems designed to develop negotiating skills. For more information contact the Dept. of Negotiations, AMA Headquarters.

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
Contact: Office of CME

(1981)

- Jan. 4-9** Dx & Rx of Skeletal Disorders
(Keystone, Colo.)
- Feb. 26-27** Clinical Topics in Pulmonary Medicine
- Mar 2-
May 18** Internal Medicine Review
(Monday Evenings — Jewish Hospital)
- Mar. 12-13** Gland Rounds (What's New in Endocrinology)
- Mar. 16-17** Eighth Annual Symposium on Obstetrics & Gynecology
- Mar. 19-20** Rheumatology for the Practicing Physician
- April 5-12** Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics
(Caribbean Cruise)
- May 8-9** Alumni Reunion
- May 13** Burns: The Early Days
- May 21-22** Postgraduate Course in Otolaryngology

**The Edward Mallinckrodt Institute of Radiology —
Washington University School of Medicine**
510 S. Kingshighway, St. Louis 63110
Contact: Ronald G. Evens, M.D., Director

(1981)

- Jan. 19** City-Wide Radiology Conference —
Ultrasound in Obstetrics
- Feb. 9** City-Wide Radiology Conference
- Mar. 9** City-Wide Radiology Conference —
Interventional Radiology
- April 5-12** Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics Meeting
- May 11** City-Wide Radiology Conference —
Digital Imaging and Computers Radiology
- June 13** Leroy Sante Lecture

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

(1981)

- Jan. 25-30** Traveling Medical Education Course
— K.C. Southwest Clinical Society
(Steamboat Springs, Colo.)
- Jan. 29** CT of Orbital Lesions
(Truman Medical Center)
- Jan. 31-
Feb. 7** Medical Seminar at Sea — K.C. Southwest Clinical Society
(Caribbean Cruise Leaving Miami)
- Feb. 13-14** The Long Weekend: Oncology, Immunology and Infectious Diseases
(Crown Center Hotel)
- Feb. 22-
Mar. 1** Traveling Medical Education Course
— K.C. Southwest Clinical Society
(Nassau, The Bahamas)
- Feb. 26** Neurological Problems in Pediatrics
Demonstrated by CT
(Truman Medical Center)
- Mar. 26** Infratentorial Lesions — CT of the
Post Fossa Masses
(Truman Medical Center)
- Mar. 26-28** Perspectives in Medicine — 1981
(Hyatt Regency Hotel)
- April 24-25** The Long Weekend: Gastroenterology, Pulmonary Disease and Hematology
(Hyatt Regency Hotel)
- April 30** C.V.A. — Anatomical Correlation by
CAT
(Truman Medical Center)
- May 8-9** Geriatrics Seminar
(Alameda Plaza Hotel)
- May 14-15** Surgical Problems: The Old and the New
(Hyatt Regency Hotel)
- May 28** CT Evaluation of Supratentorial Lesion
(Truman Medical Center)
- June 5-6** Symposium on Physical Fitness
(Crown Center Hotel)
- June 25** Differentiation of Brain Enhancement by CT
(Truman Medical Center)

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000

Every Wed. & Fri. 3:00 PM — Basic Sciences to Surgery Seminar
4:00 PM — Surgical Rounds

Contact: Erich W. Pollak, M.D., Director of Surgical Education

First & Third Saturdays 9:00 AM — Surgical Techniques Seminar
9:45 AM — Morbidity and Mortality Conference
10:30 AM — Surgical Grand Rounds

Every Tues. 9:00 AM — Medicine Staff Conference (Except second Tuesday of each month)

Contact: David S. Sneed, M.D., Director of Medical Education

Greater Kansas City Radiological Society
KU Medical Center
Rainbow Blvd. at 39th, Kansas City, KS 66103
Contact: Norman L. Martin, M.D., President

(1981)

Jan. 22 **Neuroradiology**
(Dinner Meeting, Alameda Plaza)
5 PM — **Lecture**
(St. Luke's Hospital)

Feb. 11 **GI Radiology**
(Dinner Meeting, Alameda Plaza)
4 PM — **Lecture**
(Kansas University Medical Center)

Mar. 11 **Nuclear Medicine**
(Dinner Meeting, Alameda Plaza)
4 PM — **Lecture**
(St. Luke's Hospital)

April 8 **Bone and Joint**
(Dinner Meeting, Alameda Plaza)
4 PM — **Lecture**
(Kansas University Medical Center)

May 20 **Pediatric Urology**
(With Greater K.C. Urological Society, Granada Royale Hotel)

University of Missouri School of Medicine
Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
Contact: William D. Bradshaw, M.D.

(1981)

Jan. 8-11 **Diagnosis and Treatment of Headache**
(Scottsdale, Ariz.)

Feb. 15-19 **CAPD Conference**
(Crown Center Hotel, Kansas City)

Mar. 3 **Preceptors Day**

Mar. 4-5 **4th Annual Family Practice Update Session**

Mar. 19-20 **Spring Surgery Conference**

Mar. 30-31 **27th Annual Urology Seminar**
(Crown Center Hotel, Kansas City)

Apr. 8-9 **Primary Pediatrics for the Primary Physician**

May 8-10 **4th Annual Missouri Cardiovascular Conference**
(Tan-Tar-A, Osage Beach)

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

(1981)

Feb. 4 **Infectious Diseases**

April 1 **CT Scanning**

June 3 **Lung Disease**

Aug. 5 **Multisystem Trauma**

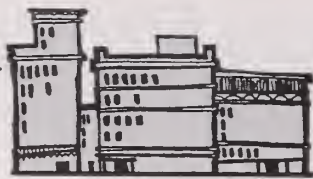
Group Relations in Health Care Conference
Dept. of Psychiatry and Behavioral Sciences
University of Texas Medical Branch,
Galveston, Tex. 77550
(713) 765-2362

Contact: Elizabeth M. Heimburger, M.D., Director

Jan. 16-18 **Group Relations in Health Care**
(St. Louis University, St. Louis)



9202 Barton Overland Park, Ks. 66214 913-492-5820



NEWS

From the Medical Schools

ST. LOUIS UNIVERSITY

Thomas C. Dolan, Ph.D., associate professor and director of the Center for Health Services Education and Research, St. Louis University Medical Center, is the new president of the Mental Health Association of Missouri for 1980-1981.



Dr. Dolan

As president, Dr. Dolan will direct the program and activities of the association, which is a voluntary, non-governmental organization dedicated to the promotion of mental health, the prevention of mental ill-

ness and the improved care and treatment of the mentally ill.

Dr. Dolan graduated from Loyola University-Chicago and received his Ph.D. degree in hospital and health care administration from the University of Iowa. He took the position as associate professor and director of the center in July, 1979.

The National Heart, Lung and Blood Institute has issued a \$43,000 extension of a grant to *David Lagunoff*, M.D., chairman of the Department of



Dr. Lagunoff

Pathology at the School of Medicine, to study the cells which are the source of the symptoms and signs of hay fever and hives.

The cells, called mast cells, harbor most of the histamine in the body. Stimulation of excess secretion of these cells results in hay fever and hives. When released in inappropriate amounts, histamine can be life threatening.

The research will attempt to define the means by which the mast cells store histamine and the

way the cells, when stimulated, release the histamine-storing granules, permitting the histamine to reach the blood vessels where it acts. Methods of biochemistry and electron microscopy are used together to analyze the molecular conditions and events in the mast cells at rest and on stimulation.

Igor Ilinsky, M.D., Ph.D., assistant research professor of anatomy, received a two-year, \$52,630 grant from the National Institutes of Health for research on the structure of the monkey brain.

Dr. Ilinsky will develop an accurate technique for operating on the monkey brain in order to improve the accuracy of biomedical research in primates and help conserve the primate population.

UNIVERSITY OF MISSOURI-KANSAS CITY

Harry S. Jonas, M.D., dean of the School of Medicine, addressed a meeting of the Kansas City Southwest Clinical Society on October 31. In his presentation, "Medicine as a Profession: Challenges and Change for the 80s," Dean Jonas traced developments in medical education from the 1950s through the September, 1980 report of the Graduate Medical Education National Advisory Committee (GMENAC).

The GMENAC report includes recommendations for limiting the numbers, types and geographic locations of residency training positions. It also predicts a surplus of physicians in most medical specialties, with the largest surpluses occurring in general surgery, obstetrics and gynecology, radiology, general pediatrics and cardiology.

More than 300 people attended the First Annual Honorary Trustees Reception of the Truman Medical Center Charitable Foundation on November 12 at the Hyatt Regency Hotel. The reception for the honorary trustees of the Foundation featured former *Secretary of State Henry Kissinger*, who spoke briefly to the audience. Individuals, corporations and foundations are being invited to become trustees in order to support projects related to the development of Truman Medical Center, the School of Medicine's primary adult teaching hospital. The medical center

recently received a \$625,000 grant from the William Volker Foundation to start the fund-raising drive.

A paper presented by *Paul Jones*, a sixth-year medical student, was cited as the outstanding paper at a recent meeting of the American College of Surgeons, Kansas Chapter in Wichita. The paper is "Surgical Approach to Recurrent Colon Cancer."

Several faculty and staff members of the School of Medicine participated in the 91st Annual Meeting of the Association of American Medical Colleges in Washington, D. C. in late October. *Assistant Dean Virginia Calkins* acted as convener for a seminar on combined baccalaureate/medical degree programs. *Dr. Louise Arnold*, assistant professor of medicine, also participated in that program.

The School of Medicine also had two medical education exhibits at the AAMC meeting. *Dr. Glenn Eberhart*, chairman of the Council on Evaluation at UMKC, and *Connie Currall* displayed their exhibit which illustrated the various methods of evaluating students at the School of Medicine. Assistant Dean Calkins, Dr. Arnold and *T. Lee Willoughby*, research assistant professor in psychology, showed an exhibit on "The Quarterly Profile Examination: A System for Longitudinal Educational Assessment."

Dr. Arnold also presented "A Longitudinal Study of the Achievement of Men and Women in Medical School" on the second day of a Women in Medicine seminar. During the small group discussions of the Group on Medical Education, *Dr. Richardson K. Noback*, professor and senior docent, was a member of the panel discussion on "Fostering the Desire to Continue Learning."

Both keynote speakers at the School of Medicine's Third Annual Convocation advised first-

year medical students to keep a sense of humor. *Dr. M. Therese Southgate*, a physician and deputy editor of the *Journal of the American Medical Association*, and *Dr. Richard V. Bradley*, president of the Missouri State Medical Association, spoke to the new students, their families and friends and the University community in a ceremony at the Performing Arts Center on November 9.

WASHINGTON UNIVERSITY

Irving I. Gottesman, Ph.D., professor of psychiatric genetics, addressed the annual meeting of the Huxley Institute for Biosocial Research on November 13. His address was entitled "Observing Persons With Schizophrenia, and Their Families — What Does It Mean About Genetics?"

Dr. Gottesman has conducted research into the inheritability of schizophrenia for more than 20 years, concentrating on schizophrenic twins who did and did not have schizophrenic co-twins, and on schizophrenics who were raised either by their biological parents or by adoptive parents. He has written or co-authored more than 90 papers and three books on genetics and personality development. His findings lead him to the conclusion that a genetic predisposition is necessary but not sufficient for the disorder to occur.

Before joining Washington University School of Medicine in September, Dr. Gottesman was Director of the Behavioral Genetics Center at the University of Minnesota in Minneapolis. The Huxley Institute is an organization of patients, families and friends providing education, research and training leading to diagnosis and rehabilitation, and a variety of services including referral and support groups.

In Memoriam

Robert F. Lamar, M.D., 5140 N.E. Antioch Rd., Kansas City 64119; a graduate of Washington University, 1939; member of Jackson County Medical Society; age 66; died Oct. 3, 1980.

Paul Franklin Max, M.D., 950 Francis Pl., Clayton 63105; a graduate of Washington University, 1932; member of St. Louis Metropolitan Medical Society; age 75; died Nov. 8, 1980.

Victor H. Bergmann, M.D., 4934 Norwood, Shawnee Mission, Kan. 66205; a graduate of St. Louis University, 1921; member of Jackson County Medical Society; age 86; died Nov. 1, 1980.

Kenneth C. Hollweg, M.D., 128 Medical Plaza, 4320 Wornall, Kansas City 64111; a graduate of St. Louis University, 1939; member of Jackson County Medical Society; age 67; died Nov. 21, 1980.

Special Lectures Scheduled for AMA Winter Scientific Meeting

Genetic engineering and brain hormones will be among special distinguished lecture topics for the Winter Scientific Meeting of the American Medical Association on Jan. 24-26, 1981 in Atlanta.

Physicians will participate in lecture sessions and study courses on a wide variety of medical topics at the convention, according to Richard M. Bergland, M.D., chairman of the AMA's Council on Continuing Physician Education.

Study areas will include update on infectious disease, problems facing the American family, gastrointestinal disease, heart disease, pulmonary disease, drug therapy, nuclear medicine, bowel disease, acute diarrhea, cirrhosis of the liver, exercise testing in heart disease, coronary by-pass surgery, management of acute respiratory failure, bacterial infections and antibiotics, viral infections, chronic mental illness, behavior problems in children, asthma, emphysema, drug interactions and venereal disease.

John T. Potts, Jr., M.D., professor of medicine and chief of the Endocrine Unit, Harvard Medical School and Massachusetts General Hospital in

Boston, will present the distinguished lecture on "Does the Dawn of Genetic Engineering Herald a Golden Age in Medicine?"

With recent public reports that gene splicing is approaching the commercial stage in American laboratories, physicians foresee a wide range of useful products from the ability to transplant a gene from one organism to another. Dr. Potts will discuss possible applications of gene splicing and genetic engineering to the everyday practice of medicine.

Another research field with great hope for the medical future will be aired in a distinguished lecture by Gavril W. Pasternak, M.D., Ph.D., neurologist at Cornell University Medical College and Memorial Sloan-Kettering Cancer Center, New York City.

"Endorphins and Beyond: The Future of Brain Hormones in Clinical Medicine," will be Dr. Pasternak's topic.

Further information on the convention is available from the Department of Scientific Assembly, AMA, 535 N. Dearborn St., Chicago, IL 60610.

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Adjunctive
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Each capsule contains
5 mg chlordiazepoxide HCl
and 2.5 mg cimetidine Br

antianxiety/antisecretory/antispasmodic
for adjunctive therapy of duodenal ulcer*
and irritable bowel syndrome*

Librax

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or cimetidine Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librax[®] (chlordiazepoxide HCl, Roche) to known addicts.

tion-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day; initially increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug.

and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

ROCHE

Roche Products, Inc.
Manati, Puerto Rico 00701

α

Alpha Stimulation

Central Control of
Blood Pressure*



*The Family of Man™ by Roberto Moretti,
a statuary in crystal symbolizing the broad range of
hypertensive patients eligible for therapy with Catapres.

The Alpha Advantage:

It's for all kinds of hypertensives

- Unlike beta blockers, Catapres® has no contraindications.
- Catapres can be useful even in these patients with:

Congestive heart failure	Allergic rhinitis
Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
Bronchial asthma	Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.

love—low incidence of impotence and/or loss of libido:
2.8% in 1,923 patients studied.¹

cardiac output—tends to return to control values during long-term therapy.

blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

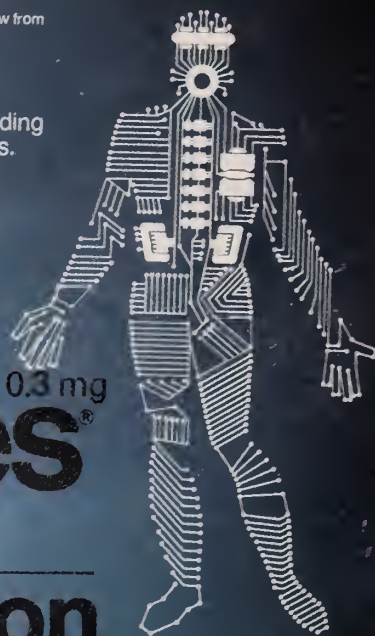
*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

¹ Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

**Now available in new
0.3 mg tablets**

Tablets of 0.1, 0.2, 0.3 mg
Catapres®
(clonidine HCl)
Hypertension

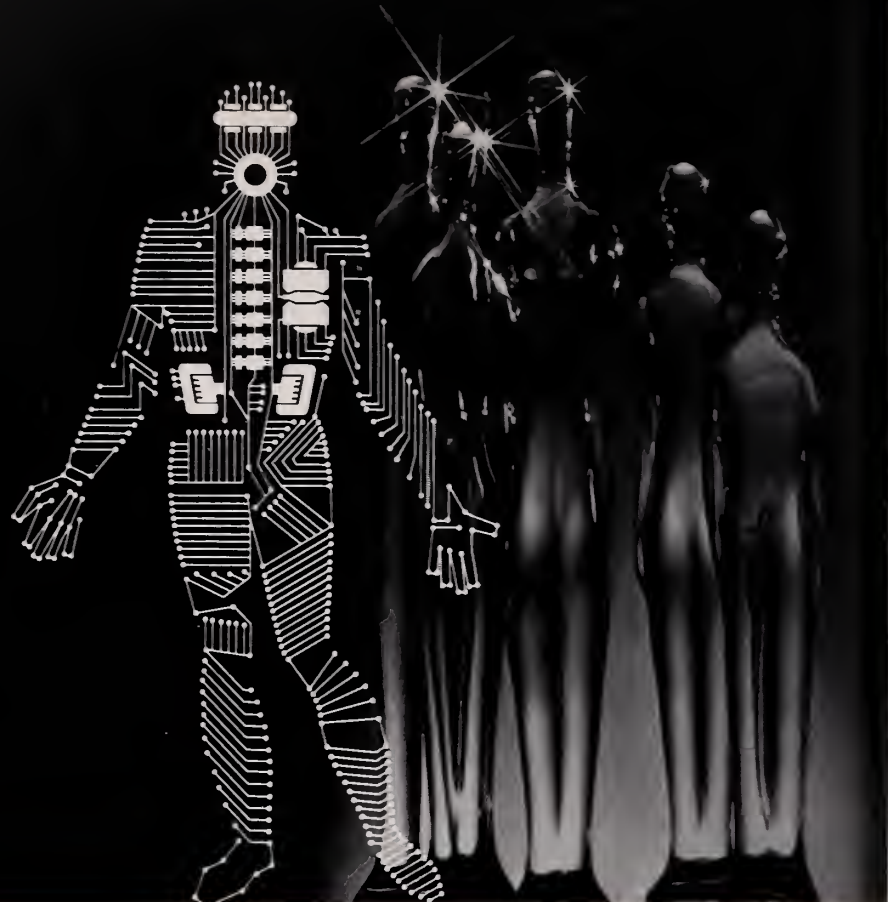




The Alpha Advantage:

It's for all kinds of hypertensives

Tablets of 0.1, 0.2, 0.3 mg
Catapres
(clonidine HCl)
Hypertension



- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an anti-hypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.

Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.

Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

spontaneously occurring retinal degeneration in albino rats treated for 6 months or longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness and sedation. Constipation, dizziness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug, some of them rarely. (In some instances an exact causal relationship has not been established.) These include: Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormalities in liver function tests; one report of possible drug-induced hepatitis without icterus and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chloralhydrate and papaverine hydrochloride. Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase: congestive heart failure, Raynaud's phenomenon; vivid dreams or nightmares, insomnia, other behavioral changes, nervousness, restlessness, anxiety and mental depression. Also rash, angioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness, itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecomastia, weakly positive Coombs' test, asymptomatic electrocardiographic abnormalities manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished or absent reflexes and vomiting followed the accidental ingestion of Catapres (clonidine hydrochloride) by several children from 19 months to 5 years of age. Gastric lavage and administration of an analeptic and vasopressor led to complete recovery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-minute intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) overdosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.

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National Conference on Medical Aspects of Sports to Be Held in Atlanta

Topics dealing with "Facial and Oral Related Injuries in Sports," "Nutrition Relating to the Athlete" and "Knee Pain in the Athlete" will be addressed in Atlanta on Jan. 24, 1981 at the 22nd National Conference on the Medical Aspects of Sports.

Sponsored by the American Medical Association, the day-long conference to be held at the Atlanta Hilton Hotel will feature former premier major league relief pitcher, Mike Marshall.

In the general session dealing with "Facial and Oral Related Injuries to Sports," Gary L. Racey, D.D.S. of Columbus, Ohio, will deliver a talk on "Treatment for Maxillofacial Trauma in Athletes," while William Heintz, D.D.S., also of Columbus, will speak on "Disturbing Recent Confusion and Concern: Update in Mouth Protection for Athletes."

On the subject of "Nutrition Relating to the Athlete," Luther B. Travis, M.D., of Galveston, Tex., will talk on "Effects of Exercise in Diabetes," and Richard A. Guthrie, M.D., of Wichita, Kan., will speak on "Regulation of the Athlete With Diabetes."

Dr. Guthrie, who serves as executive director of the Kansas Regional Diabetes Education and Research Center, will direct his remarks to diabetes mellitus, a common disorder encountered in sports medicine. The problem, according to Dr. Guthrie, is doubly difficult since, unlike many diseases which are unaffected by exercise, activity greatly affects diabetes control and diabetes control greatly affects the ability to exercise.

Properly managed, however, the athlete with diabetes mellitus should perform as well as the athlete without the disease, Dr. Guthrie concludes.

Appearing on the same general session format with Drs. Guthrie and Travis will be Ralph Nelson, M.D., of Champaign, Ill., who will discuss "Nutrition and the Athlete." Dr. Nelson, professor of nutrition at the University of Illinois School of Clinical Medicine, will address his remarks toward what he feels are misconceptions concerning nutrient requirements for exercise. An example he points out is the semi-starvation deliberately practiced by wrestlers who lose body weight and the traditional use of high calorie supplement to gain weight.

Mike Marshall, who pitched for the Los Angeles Dodgers and Minnesota Twins for more than 15 years, will appear at a 12-noon luncheon. His topic will be "Trauma to the Adolescent Throwing Arm."

In the general session covering "Knee Pain and the Athlete," moderator Bernard R. Cahill, M.D., of Peoria, Ill., will deliver a talk on "Who Gets Knee Pain and What Causes the Condition?" Also speaking at the session will be George D. Rovere, M.D., and Fred L. Allman, Jr., M.D.

Dr. Rovere, of Winston-Salem, N.C., will discuss "Diagnostic Aids in the Evaluation of Knee Pain," and Dr. Allman of Atlanta will talk on "The Treatment of Knee Pain."

Drs. Cahill, Rovere and Allman, who also will participate in a panel discussion, will be making presentations on behalf of the American Orthopedic Society for Sports Medicine.

Further information on the conference is available from the office of Jack Bell, American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610.

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40	\$ 390	\$ 32.50
50	\$ 685	\$ 57.09
60	\$1755	\$146.25

Applicant must meet insurance company's underwriting requirements.

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*"Without your help
 . . . I simply
 would not have made it
 through medical school"*

(The following letter was received from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.

"I sincerely appreciate the efforts which you and others put into the Missouri State Medical Foundation and all other student loan funds. You should feel a quiet heroism for the assistance you lend to needy students . . . without your help, I simply would not have made it through medical school."

The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

Send a Check Today to MSMF!

MISSOURI STATE MEDICAL FOUNDATION

113 Madison St., Jefferson City, Missouri 65102

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The Missouri State Medical Foundation is classified by the Internal Revenue Service under Section 501(c)(3). Individuals may deduct up to 50% of their adjusted gross income for contributions made to the MSMF.



New Members

Steven J. Adler, M.D., 4444 W. Pine #313, St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Adler is a native of New York, received his preliminary education at Swarthmore College and his M.D. degree at Washington University in 1980. He specializes in radiology.

Khandaker Abdul Ahad, M.D., 643 N. Morley, Moberly 65270, has become a member of Chariton-Macon-Monroe-Randolph County Medical Society. Dr. Ahad is a native of Bangladesh, received his preliminary education at Dacca College and his M.D. degree at Dacca Medical College in 1972. He specializes in ophthalmology.

Mohammed E. Ali, M.D., 751 E. 63rd, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Ali is a native of India, received his preliminary education at Cotton College and his M.D. degree at Dacca Medical College in 1958. He specializes in anesthesiology.

Walter C. Barnes, Jr., M.D. 13 N. Tealbrook, Creve Coeur 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Barnes is a native of Chicago, Ill., received his preliminary education at the University of Dayton and his M.D. degree at Northwestern University in 1957. He specializes in preventive medicine and aerospace medicine.

R. Cyril Bieger, M.D., 4906 Argyle, Apt. 2W., St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Bieger is a native of Covington, Ky., received his preliminary education at Xavier University and his M.D. degree at St. Louis University in 1959. He specializes in pathology.

Thomas J. Blanke, M.D., 1034 S. Brentwood Blvd., Suite 776, St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Blanke is a native of St. Louis, received his preliminary education at Rockhurst College and his M.D. degree at Washington University in 1971. He specializes in general surgery.

Joseph H. Brewer, M.D., Suite 208, 4320 Wornall, Kansas City 64111, has become a member of Jackson County Medical Society. Dr.

Brewer is a native of Ulysses, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1976. He specializes in internal medicine and infectious diseases.

Elizabeth M. Cravens, M.D., 1109 Hollyberry, Ballwin 63011, has become a member of St. Louis Metropolitan Medical Society. Dr. Cravens is a native of Little Rock, Ark., received her preliminary education at the Arkansas State University and her M.D. degree at the University of Arkansas in 1980. She specializes in emergency medicine.

Taiwo Egbedina, M.D., 10320 Corbeil Dr., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Egbedina is a native of Nigeria, received his preliminary education at Greenville College and his M.D. degree at Howard University in 1973. He specializes in general surgery.

Edwin C. Ernst, III, M.D., 12457 Balwyck, St. Louis 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Ernst is a native of Rochester, Minn., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1976. He specializes in diagnostic radiology.

John G. Esch, Jr., M.D., 2700 McClelland Blvd., Joplin 64801, has become a member of Jasper County Medical Society. Dr. Esch is a native of Omaha, Nebr., received his preliminary education at the University of Notre Dame and his M.D. degree at the University of Kansas in 1973. He specializes in orthopaedic surgery.

Abulbasher M. Faizullah, M.D., Mansfield Hospital Annex, Mansfield 65704, has become a member of South Central Counties Medical Society. Dr. Faizullah is a native of Bangladesh, received his preliminary education at Chittagong College and his M.D. degree at Chittagong Medical College in 1973. He specializes in family practice.

Ronnie S. Farris, M.D., Dept. of Surgery, Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Farris is a native of Kankakee, Ill., received his preliminary educa-

tion at Olivet Nazarene College and his M.D. degree at Ohio State University in 1975. He specializes in general surgery.

Charles W. Ferris, Jr., M.D., Missouri Baptist Hospital, 3015 N. Ballas, Town and Country 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Ferris is a native of Cleveland, Ohio, received his preliminary education at Case-Western Reserve University and his M.D. degree at Ohio State University in 1973. He specializes in pathology.

Edward B. Fliesher, M.D., 7781 Ravensridge, Apt. A-2, St. Louis 63119, has become a member of St. Louis Metropolitan Medical Society. Dr. Fliesher is a native of St. Louis, received his preliminary education at Northwestern University and his M.D. degree at St. Louis University in 1978. He specializes in pediatrics.

Kenneth E. Floro, Jr., M.D., 1035 Bellevue, St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Floro is a native of Clayton, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1975. He specializes in general surgery.

Dennis L. Fowler, M.D., 4320 Wornell Rd., Suite 332, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Fowler is a native of Manhattan, Kan., received his preliminary education at Phillips University and his M.D. at the University of Kansas in 1973. He specializes in general surgery.

Barry C. Goldman, M.D., 8300 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Goldman is a native of Kansas City, received his preliminary education at Miami University and his M.D. degree at the University of Kansas in 1975. He specializes in internal medicine.

Marshall P. Goren, M.D., Laboratory Medicine, Barnes Hospital, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Goren is a native of Detroit, Mich., received his preliminary education at the University of Michigan and his M.D. degree at the University of Michigan in 1978. He specializes in clinical pathology.

Thomas G. Hartmann, M.D., 301 W. Liberty, Farmington 63640, has become a member of Mineral Area County Medical Society. Dr. Hart-

mann is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1976. He specializes in family practice.

Catherine G. Henry, M.D., 500 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Henry is a native of Chicago, Ill., received her preliminary education at St. Olaf College and her M.D. degree at Washington University in 1976. She specializes in cardiology (pediatric).

Alexander L. Herland, M.D., 1431 Southwest Blvd., Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Herland is a native of Romania. He received his M.D. degree at the University of Milan in 1951. He specializes in obstetrics and gynecology.

Chester J. Hill, M.D., St. Louis University, 1325 Grand, St. Louis 6314, has become a member of St. Louis Metropolitan Medical Society. Dr. Hill is a native of Appleton, Wis., received his preliminary education at Knox College and his M.D. degree at Northwestern University in 1977. He specializes in internal medicine.

James H. Hinrichs, M.D., 12255 DePaul Dr., Bridgeton 63044, has become a member of St. Louis Metropolitan Medical Society. Dr. Hinrichs is a native of St. Louis, received his preliminary education at St. Benedict's College and his M.D. degree at St. Louis University in 1975. He specializes in internal medicine and infectious diseases.

William L. Holcomb, Jr., M.D., 525 E. Jefferson, Kirkwood 63122, has become a member of St. Louis Metropolitan Medical Society. Dr. Holcomb is a native of Rantoul, Ill., received his preliminary education at Purdue University and his M.D. degree at Indiana University in 1975. He specializes in obstetrics and gynecology.

Scott D. Jones, M.D., 1221 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Jones is a native of San Diego, Calif., received his preliminary education at Abilene Christian University and his M.D. degree at the University of Texas in 1975. He specializes in psychiatry.

Naim S. Kassir, M.D., Truman Medical Center, Dept. of Obstetrics/Gynecology, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Kassir is a native of Syria, received his preliminary

WHEN ANXIETY AND TENSION MAGNIFY PAIN IN MUSCULOSKELETAL DISEASE*

A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC[®] IV

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlorthalidone, end diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and institution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug. Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoadosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

Wyeth Laboratories
Philadelphia, Pa. 19101



FOR MODERATE PAIN

A therapeutic dose
of acetaminophen
in *one* tablet

A therapeutic dose
of two complementary
analgesics

The convenience and
economy of a
dosage schedule of
one tablet, every four
hours as needed



WHY NOT WYGESIC®^{IV}

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE. Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analgesic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237:2405-2407, 1977). Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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In Hypertension*...When You Need to Conserve K⁺

Every Step of the Way



Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K⁺ supplement or K⁺-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K⁺ supplement or K⁺-sparing agent).

Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, throm-

bocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently, both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with

possible metabolic acidosis. Dyazide[®] interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and Dyazide should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. Dyazide[®] should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only), in Patient-Pak[™] unit-of-use bottles of 100.

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works well in your office...

NEOSPORIN® Ointment (polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

works just as well in their homes.

- It's effective therapy for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses.
- It provides broad-spectrum overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep.



- It helps prevent topical infections, and treats those that have already started.
- It contains three antibiotics that are rarely used systemically.
- It is convenient to recommend without a prescription.

NEOSPORIN® Ointment—for the office, for the home.
(polymyxin B-bacitracin-neomycin)

Effective • Economical • Convenient • Recommendable

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

education at Campagna College and his M.D. degree at Aleppo University in 1973. He specializes in obstetrics and gynecology.

Herbert J. Krantman, M.D., 777 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Krantman is a native of Marshalltown, Iowa, received his preliminary education at Yeshiva University and his M.D. degree at New York University in 1974. He specializes in pediatrics.

Nandini S. Kulkarni, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Kulkarni is a native of India, received her preliminary education at Elphinstone College and her M.D. degree at Seth G. S. Medical College in 1972. She specializes in anesthesiology.

Ravi S. Kumar, M.D., 660 S. Euclid, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Kumar is a native of India, received his preliminary education at Rangaraya College and his M.D. degree at Rangaraya College in 1971. He specializes in anesthesiology.

Robert L. Lamberg, M.D., 211 N. Meramec, Clayton 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. Lamberg is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at Washington University in 1976. He specializes in ophthalmology.

John P. Marbarger, Jr., M.D., Suite 3108, Queeny Tower, 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Marbarger is a native of Burlington, Vt., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1972. He specializes in cardiothoracic surgery.

Robert P. Margolis, M.D., 11155 Dunn Rd., St. Louis 63136, has become a member of St. Louis Metropolitan Medical Society. Dr. Margolis is a native of Rochester, N.Y., received his preliminary education at Kent State University and his M.D. degree at St. Louis University in 1975. He specializes in neurology.

Mark W. Martin, M.D., 6601 Rockhill Rd., Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Martin is a native of Ardmore, Okla., received his preliminary education at Drury College and his M.D. degree at the University of West Indies in 1976. He

specializes in family practice.

Jerald A. Maslanko, M.D., 4570 Audubon Ave., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Maslanko is a native of Savannah, Ga., received his preliminary education at Emory University and his M.D. degree at Emory University in 1975. He specializes in internal medicine.

Gary A. Muncy, M.D., 12844 Crab Thicket La., St. Louis 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Muncy is a native of Enid, Okla., received his preliminary education at Southwest Texas State University and his M.D. degree at the University of Texas in 1975. He specializes in anesthesiology.

Loi D. Nguyen, M.D., Lutheran Hospital, 2639 Miami, St. Louis 63118, has become a member of St. Louis Metropolitan Medical Society. Dr. Nguyen is a native of Viet Nam, received his preliminary education at the Faculty of Science, Hanoi and his M.D. degree at Saigon Medical School in 1960. He specializes in family practice.

Kelly B. Pendergrass, M.D., Suite 316, 6400 Prospect Ave., Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Pendergrass is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1975. He specializes in oncology.

Richard C. Pennell, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Pennell is a native of Newton, Iowa, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at St. Louis University in 1979. He specializes in general surgery.

Frank O. Petkovich, M.D., 11155 Dunn Rd., St. Louis 63136, has become a member of St. Louis Metropolitan Medical Society. Dr. Petkovich is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1973. He specializes in orthopedic surgery.

John D. Pro, M.D., 4320 Wornall, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Pro is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1973. He specializes in psychiatry and neurology.

Emmeline P. Quiason, M.D., 109 Medical Plaza Bldg., 17221 E. 23rd, Independence 64057, has become a member of Jackson County Medical Society. Dr. Quiason is a native of Manila, Philippines, received her preliminary education at the University of the Philippines and her M.D. degree at the University of the Philippines in 1969. She specializes in psychiatry and child psychiatry.

Palle K. S. P. Reddy, M.D., Dept. of Anesthesiology, 660 S. Euclid Ave., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Reddy is a native of India, received his preliminary education at Kurnool Medical College and his M.D. degree at Sri Venkateswara University in 1971. He specializes in anesthesiology.

Richard W. Sato, M.D., 4511 Forest Park Blvd., St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Sato is a native of St. Louis, received his preliminary education at John Hopkins University and his M.D. degree at Washington University in 1977. He specializes in pediatrics.

Andrew J. Scaduto, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Scaduto is a native of New York, N.Y., received his preliminary education at Rensselaer Polytechnic Institute and his M.D. degree at St. Louis University in 1978. He specializes in family practice.

Howard J. Schlansky, M.D., St. Louis Children's Hospital, 500 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Schlansky is a native of St. Louis, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1978. He specializes in pediatrics.

Thomas L. Schmidt, M.D., The Children's Mercy Hospital, 24th at Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Schmidt is a native of Pratt, Kan., received his preliminary education at Elmhurst College and his M.D. degree at the University of Illinois in 1974. He specializes in orthopaedic surgery.

Robert J. Schneider, M.D., 522 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Schneider is a native of St. Louis, received his preliminary education at Johns Hopkins University

and his M.D. degree at Johns Hopkins University in 1976. He specializes in internal medicine.

William G. Sedgwick, M.D., 1034 S. Brentwood, St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Sedgwick is a native of St. Louis, received his preliminary education at Princeton University and his M.D. degree at Washington University in 1975. He specializes in orthopedic surgery.

David L. Smith, M.D., 2316, E. Meyer Blvd., Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Smith is a native of Oxford, Miss., received his preliminary education at the University of Mississippi and his M.D. degree at the University of Mississippi in 1966. He specializes in infectious diseases and internal medicine.

Johnathan S. Szeto, M.D., Suite 1200, Bryant Building, 1102 Grand, Kansas City 64106, has become a member of Jackson County Medical Society. Dr. Szeto is a native of Hong Kong, received his preliminary education at Northwestern University and his M.D. degree at Southern Illinois University in 1977. He specializes in internal medicine.

Vincent S. Shen, M.D., St. Louis University Hospital, 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Shen is a native of Dayton, Ohio, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1979. He specializes in internal medicine.

Robert A. Shively, M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Shively is a native of South Bend, Ind., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1969. He specializes in orthopedic surgery.

Nareshkumar J. Solanki, M.D., 3535 S. Jefferson, St. Louis 63118, has become a member of St. Louis Metropolitan Medical Society. Dr. Solanki is a native of Kenya, E. Africa, received his preliminary education at the University of Nairobi and his M.D. degree at the University of Nairobi in 1975. He specializes in pediatrics.

Randall L. Stahly, D.O., 12255 DePaul Dr., Bridgeton 63044, has become a member of St.

Louis Metropolitan Medical Society. Dr. Stahly is a native of Bloomington, Ill., received his preliminary education at Southeast Missouri State University and his D.O. degree at Kirksville College of Osteopathic Medicine in 1974. He specializes in neurology.

William M. Thomson, M.D., 826 Eaglebrooke Dr., Ballwin 63011, has become a member of St. Louis Metropolitan Medical Society. Dr. Thomson is a native of Miami, Fla., received his preliminary education at Davidson College and his M.D. degree at Johns Hopkins in 1973. He specializes in internal medicine.

Pandurangi S. Vasudevarao, M.D., 7323 Fernbrook Dr. #304, St. Louis 63123, has become a member of St. Louis Metropolitan Medical Society. Dr. Vasudevarao is a native of India, received his preliminary education at A.V.N. College and his M.D. degree at Andhra Medical College in 1969. He specializes in general surgery and plastic surgery.

Samuel M. Watts, II, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Watts is a native of Kansas City, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1979. He specializes in family practice.

Bruce C. Weldon, M.D., 1465 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Weldon is a native of St. Louis, received his preliminary education at the University of Missouri-St. Louis and his M.D. degree at St. Louis University in 1978. He specializes in pediatrics.

Elsie E. Winstead, M.D., 77 Westport Plaza, St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Winstead is a native of Tarboro, N.C., received her preliminary education at East Carolina University

and her M.D. degree at the University of North Carolina in 1977. She specializes in internal medicine.

Norman L. Wool, M.D., 6724 Troost Ave., Suite 410, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Wool is a native of Waukegan, Ill., received his preliminary education at Northwestern University and his M.D. degree at Chicago Medical School in 1975. He specializes in general surgery.

Kenneth W. Zehnder, M.D., 6651 Chippewa, Suite 301, St. Louis 63109, has become a member of St. Louis Metropolitan Medical Society. Dr. Zehnder is a native of Cleveland, Ohio, received his preliminary education at Wittenberg University and his M.D. degree at St. Louis University in 1973. He specializes in orthopedic surgery.

New Student Members

University of Missouri-Columbia

Stephen Davis
James M. Mullins, III
Michael E. Rau
Alvin I. Rosenthal
Theresa Patrick Smith
Mark D. Winton

University of Missouri-Kansas City

Stephen M. Butler
Jay Scott Dudley
Jeffrey J. Hallazgo
Robert R. Hausam
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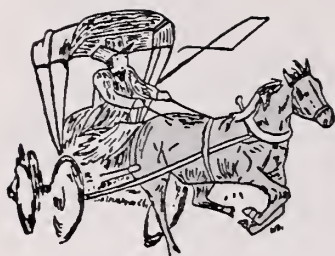
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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

Dr. D. G. Royston, St. Louis, was elected president-elect of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons at the annual session in Excelsior Springs on September 26.

Dr. M. Pinson Neal, Columbia, was chosen president-elect of the Southern Medical Association at its meeting in Louisville, Ky. on November 12-15. He will be installed as president at the 1941 session which will be held in St. Louis.

Dr. Curtis H. Lohr of St. Louis, chairman, presided at the meeting of the Council of the Missouri State Medical Association at the Muehlebach Hotel in Kansas City on October 16. Dr. Charles E. Fallet, DeSoto, was unanimously elected to represent the Fourth Councilor District to fill the unexpired term of Dr. R. B. Denny, Creve Coeur, who resigned subsequent to his election as president-elect.

Members and guests present at the October 10 meeting of the South Central Counties Medical Society meeting at Cabool on October 10 were Drs. Eldon C. Bohrer, West Plains; J. A. Fuson, Mansfield; L. T. Van Noy, Norwood; S. C. Ames, R. W. Denny, H. G. Frame and R. A. Ryan, Mountain Grove; J. R. Womack, Houston; Garrett Hogg, Jr., Cabool; Fred R. Farthing and E. E. Glenn, Springfield; and C. F. Callihan, Willow Springs.

TWENTY-FIVE YEARS AGO

Expectation of life at birth reached an all-time high of 69.8 years in 1954 among industrial policyholders of the Metropolitan Life Insurance Company. In the decade of 1879 to 1889, the expectation of life at birth of a similar group was only 34 years.

The city of Chaffee celebrated its golden jubilee recently and W. O. Finney, M.D. was presented

a trophy as Chaffee's outstanding citizen. He has practiced medicine in Chaffee since 1910.

Some 40 physicians attended a joint meeting of the Henry, Johnson, Pettis, Saline and adjacent county medical societies at the Pacific Cafe in Sedalia on September 21. The evening's festivities began with a social period, dinner and then the scientific program.

Formerly chairman of the Department of Anatomy at the University of Kansas, Dr. Homer B. Latimer is Visiting Professor of Anatomy at the University of Missouri School of Medicine.

TEN YEARS AGO

An effort by scientists at the University of Missouri-Columbia to develop a computer system for the automatic analysis of X-rays and other radiant images has received grant support of \$385,639 from the National Institute of General Medical Sciences. Dr. Gwilym S. Lodwick, professor and chairman of the Department of Radiology, is the principal investigator of the research program.

Of the 144 freshmen enrolled, there are 17 women, the largest number in an incoming freshman class at the St. Louis University School of Medicine.

The Lafayette-Ray County Medical Society met on September 8 at Maib's Cafe in Lexington with 23 members and guests present. Officers elected were Dr. Hubert Huber, president; Dr. J. S. Cope, vice-president and president-elect; and Dr. Wayne Boydston, secretary-treasurer.

The regular meeting of the West Central Missouri Medical Society was held at Glen's Cafe in Butler on October 1. Dr. Roy W. Pearse, Nevada, presided. Officers elected by acclamation were Drs. Robert L. Magee, El Dorado Springs, president; Glen H. Reed, Osceola, vice-president; and John Torontow, Nevada, secretary.

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Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morgani*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonia. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonia:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

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